

10/542,941

(FILE 'HOME' ENTERED AT 22:45:41 ON 19 MAR 2006)

FILE 'REGISTRY' ENTERED AT 22:45:54 ON 19 MAR 2006

L1 STRUCTURE UPLOADED
L2 42 S L1
L3 920 S L1 FULL

FILE 'CAPLUS' ENTERED AT 22:46:30 ON 19 MAR 2006

L4 250 S L3
L5 231 S L4 AND PY<2003
L6 6 S L5 AND PALLADIUM
L7 3 S L5 AND PHOSPHINE

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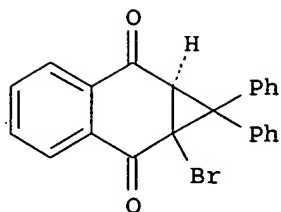
L5 ANSWER 1 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:117127 CAPLUS
DN 137:46771
TI Bromine-magnesium exchange in gem-dibromocyclopropanes using Grignard reagents
AU Baird, Mark S.; Nizovtsev, Alexey V.; Bolesov, Ivan G.
CS Department of Chemistry, University of Wales, Bangor, Gwynedd, LL57 2UW, UK
SO Tetrahedron (2002), 58(8), 1581-1593
CODEN: TETRAB; ISSN: 0040-4020
PB Elsevier Science Ltd.
DT Journal
LA English
OS CASREACT 137:46771
AB Reaction of gem-dibromocyclopropanes with ethylmagnesium bromide at ambient temperature leads to very high yields of allenes, e.g. 96% 3-phenylbuta-1,2-diene. When cyclopropylidene-allene ring opening is suppressed, alternative carbenic products are observed, although other reactions compete. When the reactions were carried out at -60°, a 1-bromo-1-(bromomagnesium)cyclopropane is formed which may be trapped by a number of electrophiles.
RE.CNT 87 THERE ARE 87 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2001:530533 CAPLUS
DN 135:268418
TI On the PNN modeling of estrogen receptor binding data for carboxylic acid esters and organochlorine compounds
AU Kaiser, Klaus L. E.; Niculescu, Stefan P.
CS National Water Research Institute, Burlington, ON, L7R 4A6, Can.
SO Water Quality Research Journal of Canada (2001), 36(3), 619-630
CODEN: WQRCFA; ISSN: 1201-3080
PB Canadian Association on Water Quality
DT Journal
LA English
AB The authors describe the relationship between the estrogen receptor binding and the mol. structure of chems. using the probabilistic neural network methodol. with structural fragment descriptors as input variables and a data set of 1118 compds. Exploratory models identified two subsets of chems. for which the predictions were well correlated with the measured values, namely chlorine-containing compds. and carboxylic esters, and for which individual models were developed. Both compound classes are in the classification system for chems. on the Canadian Domestic Substances List (DSL) and the data cover five orders of magnitude in activity in each of these classes. The results show excellent performance of both models and are highly encouraging in the search for other models for this and other receptor binding data as well as other classes of DSL substances. They also confirm the flexibility, usefulness and applicability of the probabilistic neural networks as modeling methodol. to a wide variety of modeling challenges in the environmental and health fields.
RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2001:22245 CAPLUS
 DN 135:45862
 TI A novel cis-trans photoisomerization of vinylidenecyclopropanes via an electron-transfer chain process
 AU Mizuno, K.; Nire, K.; Sugita, H.; Maeda, H.
 CS Graduate School of Engineering, Department of Applied Chemistry, Osaka Prefecture University, Sakai, Osaka, 599-8531, Japan
 SO Tetrahedron Letters (2001), 42(14), 2689-2692
 CODEN: TELEAY; ISSN: 0040-4039
 PB Elsevier Science Ltd.
 DT Journal
 LA English
 AB The cis-trans photoisomerization of 1,1-bis(4-methoxyphenyl)vinylidene-2,3-dimethylcyclopropanes in aerated MeCN was sensitized by 9,10-dicyanoanthracene and chloranil in the presence of an additive via an electron-transfer chain process, in which the cation radicals generated from the vinylidenecyclopropanes were involved as chain carriers.
 RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2000:293423 CAPLUS
 DN 133:104818
 TI Regio- and endo-Selective [2 + 2] Photocycloadditions of Homobenzoquinones with Ethyl Vinyl Ether
 AU Kokubo, Ken; Nakajima, Yu-ichi; Iijima, Katsuyuki; Yamaguchi, Hiroshi; Kawamoto, Tatsuya; Oshima, Takumi
 CS Department of Applied Chemistry Faculty of Engineering, Osaka University, Toyonaka Osaka, 560-0043, Japan
 SO Journal of Organic Chemistry (2000), 65(11), 3371-3378
 CODEN: JOCEAH; ISSN: 0022-3263
 PB American Chemical Society
 DT Journal
 LA English
 OS CASREACT 133:104818
 AB Irradiation of various meta- and para-substituted homobenzoquinones with Et vinyl ether gave the [2 + 2] photoadducts, tricyclic diones, regio- and endo-selectively and in good yields. The tricyclic skeleton has an anti-configuration built by the addition of Et vinyl ether from the less hindered side of the homoquinones. All of the substituents (Me, Cl, Br, MeO) at the reacting C:C double bond afforded head-to-head (HH) addition predominantly. In the case of Me, Cl, and Br, the ethoxy group was oriented in the endo-position, while the MeO substituent led to a 1/5 mixture with the exo-isomer. It was also found that the Br-substituted [2 + 2] adducts undergo a facile skeletal rearrangement, being converted into dihydro-o-benzoquinone monomethide derivs. for para-substitution and dihydrobenzofuran derivs. for meta-substitution, probably under the influence of the in situ generated HBr. Intramol. [2 + 2] photocycloaddn. of an alkenylhomobenzoquinone afforded a tetracyclic dione.
 RE.CNT 73 THERE ARE 73 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 5 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2000:119805 CAPLUS
 DN 132:222125
 TI Kinetic study of thermolysis of diarylhomonaphthoquinones. Endo/exo substituent and solvent effects
 AU Oshima, Takumi; Tamada, Kazushi; Tamura, Hatsue; Nagai, Toshikazu
 CS Department of Applied Chemistry, Faculty of Engineering, Osaka University, Osaka, 560, Japan
 SO Perkin 2 (2000), (1), 135-141
 CODEN: PRKTFO
 PB Royal Society of Chemistry
 DT Journal
 LA English
 GI

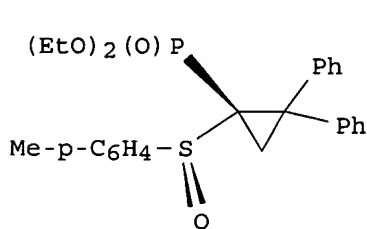


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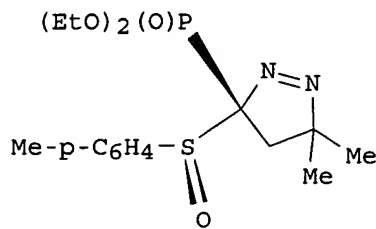
AB The kinetics of thermal cyclopropane ring-opening of a series of m- and p-substituted endo/exo diphenylbromohomonaphthoquinones and the unsubstituted diphenylchlorohomonaphthoquinone have been investigated and compared with biphenyl-2,2'-diylhalogenohomonaphthoquinones. The first-order rate consts. k/s^{-1} at 100° in toluene increased with the electron-donating ability of the substituents. The kinetics substituent effects were much more pronounced for the exo family than for the endo one and revealed the crucial role of the resonance contribution of diaryl groups; $\log(k/k_o)_{exo} = -1.99\sigma + 0.086$ and $\log(k/k_o)_{endo} = -0.784\sigma + 0.002$, resp. The kinetic solvent effects on the thermolysis of representative compound I were so minute that the rates tended to slightly increase with the solvent polarity but decrease with the solvent basicity. These kinetic results were interpreted in terms of a concerted disrotatory ring opening of the incorporated cyclopropane ring.

RE.CNT 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 6 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1999:798100 CAPLUS
DN 132:151874
TI 1,3-Dipolar cycloaddition of diazoalkanes to racemic and optically active α -(diethoxyphosphoryl)vinyl p-tolyl sulfoxides: a new synthesis of 3-phosphorylpyrazoles and asymmetric synthesis of cyclopropanes
AU Midura, Wanda H.; Krysiak, Jerzy A.; Mikolajczyk, Marian
CS Centre of Molecular and Macromolecular Studies, Department of Organic Sulfur Compounds, Polish Academy of Sciences, Lodz, 90-363, Pol.
SO Tetrahedron (1999), 55(51), 14791-14802
CODEN: TETRAB; ISSN: 0040-4020
PB Elsevier Science Ltd.
DT Journal
LA English
OS CASREACT 132:151874
GI



I



II

AB Cycloaddn. of diazomethane and Et diazoacetate to α -(diethoxyphosphoryl)vinyl p-tolyl sulfoxide 1a and its β -substituted analogs (Me, Ph) gave 3-phosphorylpyrazoles in high yield. The reaction of chiral (S)-(+)-1a with diphenyldiazomethane proceeds fully diastereoselectively to give the corresponding cyclopropane (+)-I (86% yield) with the (SC,SS) configuration determined by x-ray diffraction anal. Diazopropane reacts with (S)-(+)-1a to give only one diastereoisomer of the pyrazoline cycloadduct (+)-II (90% yield) which undergoes decomposition to the cyclopropane (+)-6b with preservation of configurational integrity.

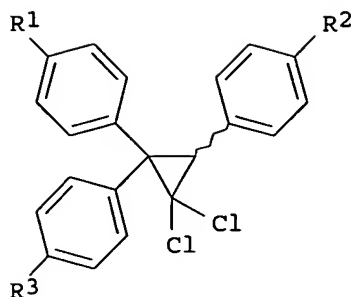
RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 7 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1999:369130 CAPLUS
DN 131:26016
TI 2-Bromo-2,3-diphenylmethano-2,3-dihydronaphthoquinone
AU Oshima, Takumi; Fukushima, Kazuaki; Kawamoto, Tatsuya
CS Department of Applied Chemistry, Faculty of Engineering, Osaka University,
Osaka, 560-0043, Japan
SO Acta Crystallographica, Section C: Crystal Structure Communications (1999), C55(4), 608-610
CODEN: ACSCEE; ISSN: 0108-2701
PB Munksgaard International Publishers Ltd.
DT Journal
LA English
AB In the title compound, a diphenylhomonaphthoquinone, C₂₃H₁₅BrO₂, the quinone frame adopts a slightly boat-shaped conformation, with folding angles of 11(3) and 14(3)°. The severe steric congestion between the endo-Ph group and the quinone moiety results in considerable freezing of the aromatic ring. Crystallog. data are given.
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 8 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1999:148536 CAPLUS
DN 130:281805
TI The gem-dihaloarylcyclopropanes in reactions with sodium nitrate in trifluoroacetic and sulfuric acids
AU Saginova, L. G.; Alhamdan, Mohammad; Petrosyan, V. S.
CS Kafedra Org. Khim., MGU, Russia
SO Vestnik Moskovskogo Universiteta, Seriya 2: Khimiya (1998), 39(5), 339-343
CODEN: VMUKA5; ISSN: 0579-9384
PB Izdatel'stvo Moskovskogo Universiteta
DT Journal
LA Russian
AB Reaction of 1,1-dichloro- and 1,1-dibromo-2-phenylcyclopropane (I) with NaNO₃ in CF₃CO₂H resulted in nitration of the aromatic ring in the ortho and para positions. In the case of I, CF₃CO₂CHPhCH₂CBr₂NO was also formed. When the reactions were carried out in concentrated H₂SO₄, the main products were 5-halo-3-(4-nitrophenyl)isoxazoles. Reaction of 1,1-dibromo-2,2-diphenylcyclopropane with NaNO₃ in concentrated H₂SO₄ resulted in nitration of one or both aromatic rings in the para position.

L5 ANSWER 9 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1998:489032 CAPLUS
DN 129:230468
TI Synthesis and biological evaluation of cyclopropyl analogs of the antiestrogen MER 25
AU Overacre, Lynette B.; Magarian, Robert A.
CS Med. Chem./Pharmaceutics Dep., Coll. Pharmacy, Univ. Oklahoma Health Sci. Cent., Oklahoma City, OK, 73190, USA
SO Bioorganic Chemistry (1998), 26(1), 15-31
CODEN: BOCMBM; ISSN: 0045-2068
PB Academic Press
DT Journal
LA English
GI



I

AB In an effort to prepare effective nonsteroidal antiestrogens without intrinsic estrogenicity and with greater antagonism than the triarylethylenes (tamoxifen), four (E)- and (Z)-1,1-dichloro-2-phenyl-2-[4-(2-diethylaminoethoxy)phenyl]-3-(4-methoxyphenyl)cyclopropane analogs (E)- and (Z)-I (R1 = OCH2CH2NEt2, R2 = MeO, R3 = H) (II) and (E)- and (Z)-I (R1 = OCH2CH2NEt2, R2 = MeO, R3 = OC7F7) (III) of the antiestrogen MER 25 were prepared. The (E)- and (Z)-gem-dichlorotriarylcyclopropanes were tested for their ability to inhibit the growth of estrogen receptor (ER)-pos. MCF-7E3 and ER-neg. MDA-MB-231 human breast cancer cells in culture. All compds., except (E)-III, exhibited a statistically significant ($P < 0.01$) reduction in estradiol-stimulated growth (antiestrogenic activity) at 1.0 μM concentration in the MCF-7E3 cells. Inhibition of estradiol-stimulated growth at concns. lower than 1.0 μM was demonstrated by (E)-II, MER 25, and ICI 182,780. (E)-II produced weak inhibition at 0.1 nM (19%) and nearly complete inhibition (79-112%) over a concentration range of 1.0 to 100 nM. MER 25 produced inhibition of estradiol-stimulated growth at 1.0 (39%), 10 (102%), and 100 nM (100%) concns. ICI 182,780 completely inhibited estrogen-stimulated growth from 0.1 nM to 1.0 μM concns. Two compds. exhibited estrogenic activity: (E)-III (from 1.0 nM to 1.0 μM concns.) and MER 25, which had antiestrogenic action at the lower concentration ranges, but exhibited estrogenic properties at 100 nM to 1.0 μM concns. None of the test compds. or stds. were active in the MDA-MB-231 cell line at the concns. studied (0.01 nM to 1.0 μM). In addition, none of the compds. inhibited cell growth below control in the MCF-7E3 cell line. The results from both cell lines suggest that the test compds. are devoid of any antitumor properties, which is thought to be mediated through a nonreceptor mechanism. Analog (E)-II has the potential to be useful in the treatment of hormone-responsive breast cancer. (c) 1998 Academic Press.

RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 10 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1998:480666 CAPLUS

DN 129:203008

TI Reactivity of the acids of trivalent phosphorus and their derivatives.
Part IX. The >P-O- and >P-S- nucleophiles in the reactions of halophilic substitution

AU Dembkowski, Leszek; Witt, Dariusz; Rachon, Janusz

CS Dep. of Organic Chemistry, Chemical Faculty, Technical University of Gdansk, Gdansk, 80-952, Pol.

SO Phosphorus, Sulfur and Silicon and the Related Elements (1997), 127, 143-157

CODEN: PSSLEC; ISSN: 1042-6507

PB Gordon & Breach Science Publishers

DT Journal

LA English

AB The reaction of the >P-Y- (Y = O, S) nucleophiles with the compds. possessing a C-Br bond and electron-withdrawing groups (Me 1-bromo-2,2-diphenylcyclopropanecarboxylate, p-nitrobenzyl bromide; bromodiphenylmethane, 9-bromofluorene, bromotriphenylmethane) is described. The isolation of the products derived from dialkyl bromophosphates, the results of the ^{31}P NMR studies, as well as the isolation of bromothiophosphate from the reaction mixture of >P-S- nucleophile and Me α -bromocarboxylate, are further evidence for

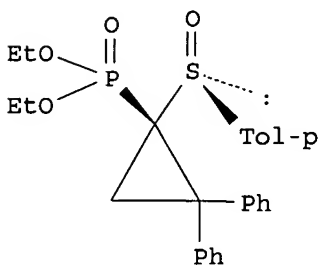
halophilic substitution as the principal process in the X-philic substitution/SET tandem mechanism operating in the reaction of these P nucleophiles with the bromo derivs. possessing electron-withdrawing groups.

RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 11 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1998:355637 CAPLUS
DN 129:109218
TI Synthesis of tri-(-)-menthyltin hydride and stereoselective reduction of some halocyclopropane derivatives
AU Radivoy, Gabriel E.; Koll, Liliana C.; Podestra, Julio C.
CS Inst. Investigaciones Quim. Org., Dep. Quim. Ingenieria Quim., Univ. Nacional Sur, Bahia Blanca, 8000, Argent.
SO Anales de la Asociacion Quimica Argentina (1997), 85(5-6), 295-300
CODEN: AAQAAE; ISSN: 0365-0375
PB Asociacion Quimica Argentina
DT Journal
LA English
OS CASREACT 129:109218
AB The synthesis and phys. properties of tri-(-)-menthyltin hydride and chloride are reported. Free radical reduction of achiral 1,1-dichloro-2,2-diphenylcyclopropane and Me (R)-(+)-1-bromo-2,2-diphenylcyclopropanecarboxylate with tri-(-)-menthyltin hydride led to the corresponding optically active dehydrohalogenation products, thus showing that these reactions are stereoselective. Full ¹H, ¹³C, and ¹¹⁹Sn NMR data are given.

RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 12 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1998:342143 CAPLUS
DN 129:95554
TI Diastereoselective asymmetric cyclopropanation of (S)-(+)-α-(diethoxyphosphoryl)vinyl p-tolyl sulfoxide
AU Midura, Wanda H.; Krysiak, Jerzy A.; Wieczorek, Michal W.; Majzner, Wieslaw R.; Mikolajczyk, Marian
CS Centre of Molecular and Macromolecular Studies, Department of Organic Sulfur Compounds, Polish Academy of Sciences, Lodz, 90-363, Pol.
SO Chemical Communications (Cambridge) (1998), (10), 1109-1110
CODEN: CHCOFS; ISSN: 1359-7345
PB Royal Society of Chemistry
DT Journal
LA English
OS CASREACT 129:95554
GI

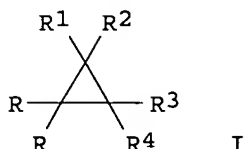


AB The title sulfoxide 1 reacts with fully deuterated dimethylsulfoxonium methylide, diphenylsulfonium isopropylide and diphenyldiazomethane to form the corresponding cyclopropanes, e.g. I, as single diastereoisomers; the chirality of the cyclopropane (+)-I obtained from 1 and diphenyldiazomethane is (SS,SC) as determined by x-ray diffraction anal.; based on exptl. data, the steric course of the asym. cyclopropanation is

proposed.
 RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 13 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1997:594517 CAPLUS
 DN 127:234171
 TI Preparation of diphenylcyclopropanes as antiestrogens
 IN Magarian, Robert A.; Pento, Joseph T.; Overacre, Lynette
 PA Research Corporation Technologies, USA
 SO U.S., 36 pp., Cont.-in-part of U.S. Ser. No. 376,961.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN.CNT 7

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5658951	A	19970819	US 1995-487717	19950607 <--
	US 4879315	A	19891107	US 1987-98945	19870921 <--
	US 5098903	A	19920324	US 1989-432564	19891106 <--
	US 5397802	A	19950314	US 1993-20922	19930222 <--
	US 5663207	A	19970902	US 1995-376961	19950120 <--
PRAI	US 1980-128040	B2	19800307		
	US 1980-166255	B2	19800707		
	US 1982-363429	B2	19820330		
	US 1987-98945	A2	19870921		
	US 1989-432564	A2	19891106		
	US 1991-812246	B2	19911219		
	US 1993-20922	A1	19930222		
	US 1995-376961	A2	19950120		
OS	MARPAT 127:234171				
GI					



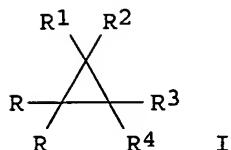
AB Title compds. [I; R = H or halo; R1,R4 = H or alkyl; R2,R3 = (un)substituted Ph] were prepared Thus, I [R = Cl R1 = R4 = H R2 = Ph, R3 = C6H4(OCH2CH2R5)-4] (II; R5 = OSO2Me) (preparation given) was condensed with piperidine to give II (R5 = piperidino). Data for biol activity of I were given.

L5 ANSWER 14 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1997:594516 CAPLUS
 DN 127:234170
 TI Preparation of diphenylcyclopropanes as antiestrogens
 IN Magarian, Robert A.; Pento, Joseph T.; Overacre, Lynette
 PA Research Corporation Technologies, USA
 SO U.S., 36 pp., cont.-in-part of U. S. Ser. No. 376,961.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN.CNT 7

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5658927	A	19970819	US 1995-480212	19950607 <--
	US 4879315	A	19891107	US 1987-98945	19870921 <--
	US 5098903	A	19920324	US 1989-432564	19891106 <--
	US 5397802	A	19950314	US 1993-20922	19930222 <--
	US 5663207	A	19970902	US 1995-376961	19950120 <--
PRAI	US 1980-128040	B2	19800307		
	US 1980-166255	B2	19800707		

US 1982-363429	B2	19820330
US 1987-98945	A2	19870921
US 1989-432564	A2	19891106
US 1991-812246	B2	19911219
US 1993-20922	A1	19930222
US 1995-376961	A2	19950120

OS MARPAT 127:234170
GI



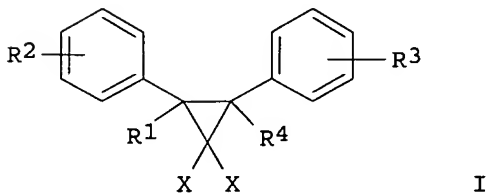
AB Title compds. [I; R = H or halo; R1,R4 = H or alkyl; R2,R3 = (un)substituted Ph] were prepared Thus, I [R = Cl R1 = R4 = H R2 = Ph, R3 = C6H4(OCH2CH2R5)-4] (II; R5 = OSO2Me) (preparation given) was condensed with piperidine to give II (R5 = piperidino). Data for biol activity of I were given.

L5 ANSWER 15 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1997:594515 CAPLUS
DN 127:234122
TI Diphenylcyclopropanes as antiestrogens and antitumor agents
IN Magarian, Robert A.; Pento, Joseph T.; Overacre, Lynette
PA Research Corporation Technologies, USA
SO U.S., 35 pp., Cont.-in-part of U. S. Ser. No. 376,961.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 7

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI	US 5658914	A	19970819	US 1995-480215	19950607 <--
	US 4879315	A	19891107	US 1987-98945	19870921 <--
	US 5098903	A	19920324	US 1989-432564	19891106 <--
	US 5397802	A	19950314	US 1993-20922	19930222 <--
	US 5663207	A	19970902	US 1995-376961	19950120 <--
PRAI	US 1980-128040	B2	19800307		
	US 1980-166255	B2	19800707		
	US 1982-363429	B2	19820330		
	US 1987-98945	A2	19870921		
	US 1989-432564	A2	19891106		
	US 1991-812246	B2	19911219		
	US 1993-20922	A1	19930222		
	US 1995-376961	A2	19950120		

OS MARPAT 127:234122
GI



AB Diphenylcyclopropanes I [X = H, Cl; R1, R4 = H, alkyl; R2, R3 = H, piperazinoalkoxy] were prepared for use as antiestrogens and anti-tumor

agents. Thus, cis-stilbene was treated with PhMgCBrCl_2 under reflux to give 86% cis-1,1-dichloro-2,3-diphenylcyclopropane which had an IC_{50} for inhibition of the uterotrophic activity of estradiol of 36 μg .

L5 ANSWER 16 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1997:411514 CAPLUS
DN 127:46457
TI Quantitative structure-activity relationships of DDT-type compounds in a sodium tail-current in crayfish giant axons
AU Nishimura, Keiichiro; Okimoto, Hiroshi
CS Research Institute Advanced Science and Technology, Osaka Prefecture Univ., Sakai, Osaka, 593, Japan
SO Pesticide Science (1997), 50(2), 104-110
CODEN: PSSCBG; ISSN: 0031-613X
PB Wiley
DT Journal
LA English
AB Effects of DDT-type compds. including 1,1-bis(para-substituted phenyl)-2,2-dichlorocyclopropanes (DCC-series compds.) on sodium currents in crayfish giant axons were measured under voltage-clamp conditions. Variations in the activity to prolong the tail-current that was observed upon step repolarization of the membrane were quant. analyzed by use of physicochem. parameters of aromatic substituents and regression anal. Introduction of lengthy and narrow substituents was favorable to the activity. Variations in the activity were parabolically related to the hydrophobicity, optimum value being around that of H. DDT- and prolan-series compds. were 203 times more active than DCC-series compds. when other structural factors were the same. Insecticidal activity of the compds. was linearly correlated with the tail-current activity when the hydrophobic factor for sep. considered. The insecticidal activity of DDT-series compds. was 2.5 times higher than that of others when the other factors were the same.

L5 ANSWER 17 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1997:338226 CAPLUS
DN 127:50883
TI A molecular modeling study on the interaction between β -cyclodextrin and synthetic pyrethroids
AU Manunza, Bruno; Deiana, Salvatore; Pintore, Marco; Delogu, G.; Gessa, Carlo
CS DISAABA, Universita di Sassari, Sassari, 07100, Italy
SO Carbohydrate Research (1997), 300(1), 89-93
CODEN: CRBRAT; ISSN: 0008-6215
PB Elsevier
DT Journal
LA English
AB The interaction between four cycloprothrin derivs. and β -cyclodextrin was investigated by means of mol. dynamics. Several in vacuo trajectories were calculated for each system imposing a 1:1 stoichiometry. Moreover, for one particular guest-host couple, the 1:2 guest-host ratio was investigated. We also took into account the influence of the solvent and of the temperature. The results account for the formation of adducts which are stable at room temperature. The formation of the adduct involves the Ph groups of the guest mols. which mainly interact with the hydrophobic cavity of the host by van der Waals forces.

RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 18 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1997:314569 CAPLUS
DN 127:5177
TI New complexes of platinum(0) with cyclopropenes
AU Hughes, David L.; Leigh, G. Jeffery; McMahon, C. Niamh
CS Nitrogen Fixation Laboratory, John Innes Centre, Norwich Research Park, Norwich, NR4 7UH, UK
SO Journal of the Chemical Society, Dalton Transactions: Inorganic Chemistry (1997), (8), 1301-1307
CODEN: JCDTBI; ISSN: 0300-9246
PB Royal Society of Chemistry

DT Journal
LA English
AB New cyclopropene complexes of Pt were synthesized with a variety of bulky substituents on all positions of the cyclopropene ring. Two of these novel complexes, [Pt(3,3-Ph₂C₃H₂)(PPh₃)₂] and [Pt(1,2-Ph₂C₃H₂)(PPh₃)₂], were structurally characterized by x-ray anal. Both contain a cyclopropene ring which has remained intact upon complexation. The bond lengths within the complexes are remarkably independent of the substituents. The structural characteristics and the ³¹P NMR spectra of these complexes are discussed. Pt cyclopropene complexes were prepared by substitution reaction of (ethene)bis(triphenylphosphine)platinum directly with the substituted cyclopropenes.

RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 19 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1996:596335 CAPLUS
DN 125:300480
TI Reaction of gem-dihalocyclopropanes with nucleophilic reagents: formation of acetylene derivatives and mechanism of reaction
AU Kostikov, R. R.; Varakin, G. S.; Molchanov, A. P.; Ogloblin, K. A.
CS St. Petersburg. Gos. Univ., St. Petersburg, 198904, Russia
SO Zhurnal Organicheskoi Khimii (1996), 32(1), 39-43
CODEN: ZORKAE; ISSN: 0514-7492
PB Nauka
DT Journal
LA Russian
AB Heating gem-dibromocyclopropanes with KOH in alcs. gave cyclopropanone acetals and propargylic ethers. The mechanism of product formation was discussed.

L5 ANSWER 20 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1996:584239 CAPLUS
DN 125:300511
TI Thermal reactions of gem-dihalocyclopropanes: alkylation of aromatic compounds and reaction with nucleophilic reagents
AU Kostikov, R. R.; Varakin, G. S.; Molchanov, A. P.; Ogloblin, K. A.
CS St. Petersburg. Gos. Univ., St. Petersburg, 198904, Russia
SO Zhurnal Organicheskoi Khimii (1996), 32(3), 367-371
CODEN: ZORKAE; ISSN: 0514-7492
PB Nauka
DT Journal
LA Russian
AB Heating 1,1-dihalo-2-phenylcyclopropanes in aromatic solvents at 140-165° resulted in electrophilic aromatic alkylation. Heating 1,1-dibromo-2,3-diphenylcyclopropane with nucleophiles RH (R = BuO, MeOCH₂CH₂O, morpholino, PhNH) at 120° gave PhCH:CB₂CHRPh.

L5 ANSWER 21 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1996:501487 CAPLUS
DN 125:221311
TI A Novel Type of Cyanomethylation Reaction of Diarylethenes with Acetonitrile Photosensitized by Benzophenone in the Presence of tert-Butylamine
AU Yamashita, Toshiaki; Yasuda, Masahide; Watanabe, Motonori; Kojima, Ryuji; Tanabe, Kimiko; Shima, Kensuke
CS Department of Chemical Science and Engineering, Miyakonojo National College of Technology, Miyakonojo, 885, Japan
SO Journal of Organic Chemistry (1996), 61(18), 6438-6441
CODEN: JOCEAH; ISSN: 0022-3263
PB American Chemical Society
DT Journal
LA English
OS CASREACT 125:221311
AB The cyanomethylation of 1,1-diphenylethene (I) efficiently occurred upon photosensitization by benzophenone in the presence of tert-butylamine in acetonitrile to give 4,4-diphenylbutanenitrile in 77% yield. It was confirmed that tert-butylamine is essential for the benzophenone-photosensitized cyanomethylation, since no or negligible cyanomethylation

was effected in the absence of the amine or by using such other amines as i-PrNH₂, Et₂NH, and Et₃N. The benzophenone photosensitization in the presence of tert-butylamine was successfully applied to the cyanomethylation of some other diarylethenes and also to the alkylations of I with propionitrile, dichloromethane, chloroform, and acetone used as solvent.

L5 ANSWER 22 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1996:457357 CAPLUS

DN 125:221226

TI Dimethyldioxirane oxidations of some cyclopropanes

AU Dehmlow, Eckehard Volker; Heiligenstaedt, Noemi

CS Fak. Chem., Univ. Bielefeld, Bielefeld, D-33501, Germany

SO Tetrahedron Letters (1996), 37(30), 5363-5364

CODEN: TELEAY; ISSN: 0040-4039

PB Elsevier

DT Journal

LA English

AB Phenylcyclopropanes and halo-phenyl-substituted cyclopropanes do not react with dimethyldioxirane. Bicyclo[4.1.0]heptane, however, is oxidized by this reagent to the 2-ketone. Bicyclo[6.1.0]nonane gives all three possible ketones. Even exo-9-bromobicyclo[6.1.0]nonane can be converted by dimethyldioxirane to a ketone.

L5 ANSWER 23 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1996:423571 CAPLUS

DN 125:104508

TI Antitumor mechanism of action of a cyclopropyl antiestrogen on human breast cancer cells in culture

AU Jain, Pramod T.; Pento, J. Thomas; Magarian, Robert A.

CS Health Sciences Center, University Oklahoma, Oklahoma, OK, 73190, USA

SO Cancer Chemotherapy and Pharmacology (1996), 38(3), 238-244

CODEN: CCPHDZ; ISSN: 0344-5704

PB Springer

DT Journal

LA English

AB Cyclopropyl compound (I) [(Z)-1,1-dichloro-2-[4-[2-(dimethylamino)ethoxy]phenyl]-2-(4-methoxyphenyl)-3-phenylcyclopropane] was shown to be a pure antiestrogen in mouse uterine tissue. Antitumor activity was examined by evaluating the influence of I on the proliferation, estrogen receptor (ER) affinity and cell-surface morphol. of ER-pos. and ER-neg. human breast cancer cells in culture. The antiproliferative potency of I was found to be equal to tamoxifen in ER-pos. MCF-7 human breast cancer cells. Further, the antiproliferative activities of I and tamoxifen were reversed by coadministration of estradiol. Accordingly, the antiproliferative activity of I appears to be estrogen-mediated, since it did not influence the growth of either ER-neg. MDA-MB-231 human breast cells or A-549 human lung cancer cells in culture. An ER-dependent mechanism of action is also supported by the specific binding affinity of I for ER in MCF-7 cells. Further, a study of cell surface morphol. using SEM revealed that I reduced the d. and distribution of microvilli (MV) on MCF-7 cells, which was reversed by coadministration of estradiol. I did not alter the cell surface morphol. of ER-neg. MDA-MB-231 cells. In conclusion, I inhibited the growth of ER-pos. MCF-7 cells in an estradiol-reversible manner, and had no effect on either ER-neg. MDA-MB-231 cells or A-549 lung cancer cells. The results of this study confirm an antiestrogenic mechanism of action for I as previously observed in vivo and suggest that I would be effective in the treatment of estrogen-dependent breast cancer or as a prophylactic treatment for women with a high risk of breast cancer development.

L5 ANSWER 24 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1996:395049 CAPLUS

DN 125:114033

TI Kinetics of the mediated reduction of gem-dichlorocyclopropanes

AU Yanilkin, V. V.; Maksimuk, N. I.; Strunskaya, E. I.; Garifullin, B. M.; Kargin, Yu. M.

CS Kazan Scientific Cent., Russian Acad. Scis., Kazan, 420083, Russia

SO Izvestiya Akademii Nauk, Seriya Khimicheskaya (1993), (8),

1407-1410

CODEN: IASKEA

PB Institut Organicheskoi Khimii im. N. D. Zelinskogo Rossiiskoi Akademii Nauk

DT Journal

LA Russian

AB The effects of organic electron transfer agents and of Pt(II), Pd(II), Rh(III), Co(II), Ni(II), Cu(II), Cr(III), Mn(II), Ti(III), V(III), Zn(II), and Ag(I) ions on the kinetics of homogeneous reduction of gem-dichlorocyclopropanes are studied. Pt(II), Pd(II), Rh(III), Co(II), and Ni(II) ions accelerate this process; V(III) and Ag(I) ions exert practically no effect; and the rest of the metal ions inhibit the process.

L5 ANSWER 25 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1996:387386 CAPLUS

DN 125:142196

TI Photoreaction of homobenzoquinones with amine donors

AU Moriwaki, Hiroshi; Matsumoto, Takashi; Nagai, Toshikazu; Oshima, Takumi

CS Fac. Eng., Osaka Univ., Toyonaka, 560, Japan

SO Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1996), (12), 1461-1466

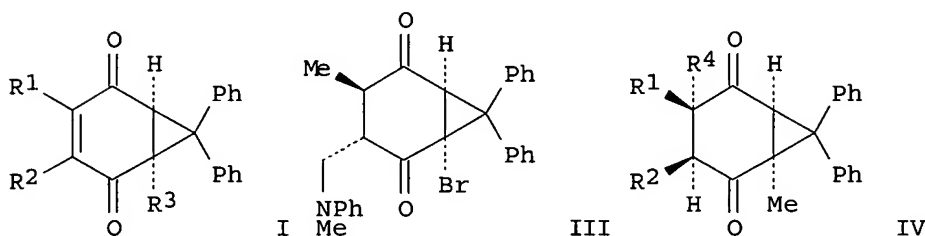
CODEN: JCPRB4; ISSN: 0300-922X

PB Royal Society of Chemistry

DT Journal

LA English

GI



AB The photoreactions of diphenylhomobenzoquinones I ($R_1 = \text{Me}$, $R_2 = \text{H}$, $R_3 = \text{Br}$, Me ; $R_1 = \text{H}$, Me , $R_2 = R_3 = \text{Me}$) were investigated in the presence of amine donors. The products of these reactions are much dependent on the substituents and the nature of added amines. Irradiation of I ($R_1 = \text{Me}$, $R_2 = \text{H}$, $R_3 = \text{Br}$) with triethylamine (TEA) resulted in ring opening of the fused cyclopropane to give 2-diphenylmethyl-1,4-benzoquinone (II). However, the photoreaction of I ($R_1 = \text{Me}$, $R_2 = \text{H}$, $R_3 = \text{Br}$) with N,N-dimethylaniline (DMA) yielded the 1:1 aminated bicyclic dione III and bis(p-dimethylaminophenyl)methane along with II. In contrast, irradiation of 1-Me substituted diphenylhomobenzoquinones I ($R_3 = \text{Me}$) with TEA brought about hydrogenation of the C:C double bond to give the bicyclic diones III ($R_1 = \text{Me}$, $R_2 = R_4 = \text{H}$; $R_1 = R_4 = \text{H}$, $R_2 = \text{Me}$; $R_1 = \text{H}$, $R_2 = R_4 = \text{Me}$). Similar photoreaction of I ($R_1 = R_3 = \text{Me}$, $R_2 = \text{H}$; $R_1 = \text{H}$, $R_2 = R_3 = \text{Me}$) DMA provided only the 1:1 aminated bicyclic diones, although trisubstituted I ($R_1\text{-}R_3 = \text{Me}$) remained essentially intact.

L5 ANSWER 26 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1996:364592 CAPLUS

DN 125:114205

TI Synthesis of alkenylidenecyclopropanes under phase-transfer and supersonic wave conditions

AU Chen, Yifei; Isagawa, Kakuzo; Yoshio, Otsuji

CS Dept. Chem., Shanghai Normal Univ., Shanghai, Peop. Rep. China

SO Huaxue Tongbao (1995), (12), 36-38

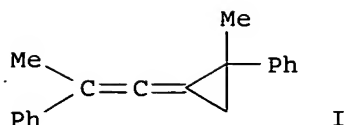
CODEN: HHTPAU; ISSN: 0441-3776

PB Kexue

DT Journal

LA Chinese

GI



AB Reaction of CHBr_3 with α -methylstyrene in CH_2Cl_2 in the presence of NaOH and triethylbenzylammonium chloride under ultrasonic irradiation gave 98% 1,1-dibromo-2-methyl-2-phenylcyclopropane, which was treated with α -methylstyrene in the presence of $\text{Bu}_4\text{N}^+\text{HSO}_4^-$ under ultrasonic irradiation to give 92.6% alkenylidenecyclopropane I.

L5 ANSWER 27 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1996:239125 CAPLUS

DN 124:306769

TI Influence of cyclopropyl antiestrogens on the cell cycle kinetics of MCF-7 human breast cancer cells

AU Jain, Pramod T.; Pento, J. Thomas; Magarian, Robert A.

CS Health Sciences Center, University Oklahoma, Oklahoma, OK, 73190, USA

SO Anticancer Research (1995), 15(6B), 2529-32

CODEN: ANTRD4; ISSN: 0250-7005

PB Anticancer Research

DT Journal

LA English

AB Five cyclopropyl compds., previously shown to exhibit pure antiestrogenic activity in the mouse uterotrophic assay and antiproliferative activity of MCF-7 human breast cancer cells in culture, were examined for their influence on the cell cycle kinetics of MCF-7 cells. The DNA-histogram of a single cell suspension was obtained on Coulter Epics V after fixing the cells in 70 % Et alc. and staining in propidium iodide. Tamoxifen increased the percentage of cells in G1-phase with a concomitant decrease in percentage of cells in S-phase, in an estradiol reversible manner. Cyclopropyl compound 7a ([Z]-1,1-dichloro-2,3-diphenyl-2-(4-(2-dimethylamino)ethoxy)phenylcyclopropane, dihydrogen citrate salt) increased the percentage of cells in G1-phase, in an estradiol-irreversible manner. 7A and three other compds. decreased the percentage of cells in S-phase and increased percentage of cells in the G2M-phase, in an estradiol-irreversible manner. Of the five cyclopropyl compds. tested, only one had no influence on the cytokinetic parameters, even though this compound was found to exhibit antiproliferative activity on MCF-7 cells equal to that of tamoxifen. In conclusion, all of the cyclopropyl compds., except for one, altered cell cycle parameters of MCF-7 cells in a manner different than that of tamoxifen. Thus, the results of this study indicate that, although these cyclopropyl compds. are antiestrogenic, they produce antiproliferative activity by a distinct mechanism of action in estrogen receptor pos. breast cancer cells.

L5 ANSWER 28 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1996:170559 CAPLUS

DN 124:316549

TI Synthesis and chiral separation of some antitumor agents

AU Singh, Satendra; Meyer, Karen L.; Magarian, Robert A.

CS Department Medicinal Chemistry Pharmaceuticals, University Oklahoma Health Sciences Center, Oklahoma City, OK, 73190, USA

SO Bioorganic Chemistry (1996), 24(1), 81-94

CODEN: BOCMBM; ISSN: 0045-2068

PB Academic

DT Journal

LA English

AB Four Z-isomers of 1,1-dichloro-2,2,3-triarylcyclopropane (DTACs), designed as potent antitumor agents, were synthesized from their appropriately substituted ethenes, which were prepared from the Grignard reaction followed by the dehydration of their intermediate carbinols. The stereospecific addition of dichlorocarbene to the ethenes followed by fractional crystallization afforded (Z)-1,1-dichloro-2-(4-benzoyloxyphenyl)-2-(4-methoxy)-3-phenylcyclopropane and (Z)-1,1-dichloro-2,3-diphenyl-2-(4-

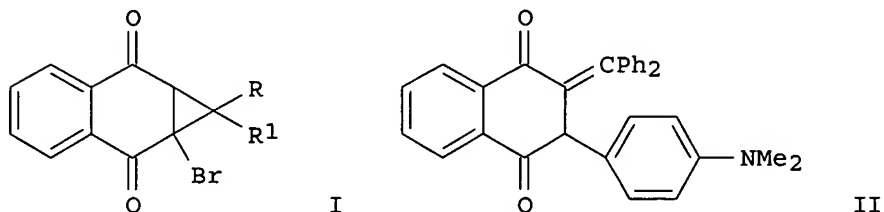
methoxyphenyl)cyclopropane. Displacement of the bromo group from the ethoxy side chain intermediates with dimethylamine gave the desired basic side chain compds., (Z)-1,1-dichloro-2,3-diphenyl-2-[4-(2-dimethylaminoethoxy)phenyl]cyclopropane and (Z)-1,1-dichloro-2-[4-(2-dimethylaminoethoxy)phenyl]-2-(4-methoxyphenyl)-3-phenylcyclopropane. While both E- and Z-stereoisomers of the DTACs were isolated using fractional crystallization, only the Z-compds. were resolved on a chiral stationary phase consisting of amylose tris-3,5-dimethylphenyl carbamate coated on silica gel. Complete resolution of the E-compds. was not observed with this system.

L5 ANSWER 29 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1996:154766 CAPLUS
DN 124:288884
TI Reaction of 1,1-dihalo-2-phenylcyclopropanes with sodium nitrite in trifluoroacetic acid
AU Sigina, L. G.; Al'khamdan, Mokhammad; Petrosyan, V. S.
CS Russia
SO Vestnik Moskovskogo Universiteta, Seriya 2: Khimiya (1995), 36(6), 573-7
CODEN: VMUKA5; ISSN: 0579-9384
PB Izdatel'stvo Moskovskogo Universiteta
DT Journal
LA Russian
AB The title reactions gave PhCH(OCOCF₃)CH₂CX₂NO (X = Cl, Br), PhCHXCH₂CX₂NO (X = Cl, Br), and 3-halo-5-phenylisoxazoles.

L5 ANSWER 30 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1996:91061 CAPLUS
DN 124:158637
TI The binary mediator system consisting of organic electron carrier and metal ions in the reactions of electrochemical reduction of bromo- and chloroorganic compounds
AU Yanilkin, V. V.; Maksimuk, N. I.; Strunskaya, E. I.
CS Arbuzov Inst. Org. Phys. Chem., Kazan, 420008, Russia
SO Russian Journal of Electrochemistry (Translation of Elektrokhimiya) (1996), 32(1), 120-6
CODEN: RJELE3; ISSN: 1023-1935
PB MAIK Nauka/Interperiodica
DT Journal
LA English
AB The electrochem. reduction of organohalogen compds. involving a double mediator system of metal ions and organic electron carrier is studied. The catalytic action of Ni(II), Co(II), Pd(II), Pt(II) and Rh(III) ions on the kinetics of homogeneous reduction of aliphatic, alicyclic, and aromatic bromo- and chloroorg. compds. by radical-anions of organic compds. in aprotic media containing tetraalkylammonium salts as supporting electrolytes is found. In all cases, there is a synergistic effect increasing with the increase in concentration of metal ions and with the decrease in efficiency of the organic carrier. By the example of binary mediator reduction involving Ni(II) and Co(II) ions, the reaction is shown to be of the second order with respect to metal ions.

L5 ANSWER 31 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1995:957641 CAPLUS
DN 124:175420
TI The preparation and lithiation of 3,3-diphenyl-1,1,2-tribromocyclopropane
AU Li, Gang; Warner, Philip M.
CS Dep. Chem., Northeast. Univ., Boston, MA, 02115, USA
SO Tetrahedron Letters (1995), 36(47), 8573-6
CODEN: TELEAY; ISSN: 0040-4039
PB Elsevier
DT Journal
LA English
AB 3,3-Diphenyl-1,1,2-tribromocyclopropane (4) was synthesized from benzophenone in three steps in an overall yield of 11.4%. Treatment of 4 with butyllithium in THF at low temps., generated 1-lithio- and 1,2-dilithiocyclopropenes which were characterized by their quenching products.

L5 ANSWER 32 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1995:867175 CAPLUS
 DN 124:116815
 TI Photoinduced electron-transfer reactions of homonaphthoquinones with amine and arene donors
 AU Moriwaki, Hiroshi; Oshima, Takumi; Nagai, Toshikazu
 CS Dep. Applied Chem., Osaka Univ., Toyonaka, 560, Japan
 SO Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1995), (19), 2517-23
 CODEN: JCPRB4; ISSN: 0300-922X
 PB Royal Society of Chemistry
 DT Journal
 LA English
 GI



AB Photoreactions of monoaryl- and diaryl-homonaphthoquinones bearing Me, chloro and bromo substituents have been studied in the presence of amine and arene donors. The products of these photolyses depend on the substituents and the identity of the added donors. Irradiation of bromo-substituted diarylhomoquinones I ($R_1 = R_2 = \text{Ph}$ or $p\text{-tolyl}$) with amines such as triethylamine and diethylamine in various aprotic solvents resulted in the formation of (\pm)- and meso-3,3'-bis(diarylmethylene)-2,2',3,3'-tetrahydro-2,2'-bi-1,4-naphthoquinones (2) via the dimerization of intermediary allyl radicals arising from bromide release accompanied by ring-opening of the cyclopropane ring. Besides dimer 2, a 1:1 amine adduct II was also obtained with N,N -dimethylaniline as donor. However, methyl- and chloro-substituted homoquinones remained intact due to the poor leaving ability of these substituents. A similar reaction of bromo-substituted methylphenylhomoquinones I ($R_1 = \text{Me}$, $R_2 = \text{Ph}$ or $R_1 = \text{Ph}$, $R_2 = \text{Me}$) gave 5-hydroxy-3-phenylnaphtho[1,2-b]furan via 2-(α -phenylvinyl)-1,4-naphthoquinone. In contrast, photoreactions of I ($R_1 = R_2 = \text{Ph}$) in the presence of arene donors, naphthalene and methoxy-substituted benzenes, gave no dimeric product but instead gave photoisomerized 2-bromo-3-diphenylmethylene-2,3-dihydronaphthoquinone (4b) and its photocyclized xanthylum salt (7). This reaction does not occur in nonpolar solvents. In the case of xanthene as donor, the dimer 2 was again formed in addition to 4b and 7. These reaction features were interpreted in terms of a difference between proton donating ability of the donor cation radicals.

L5 ANSWER 33 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1995:834681 CAPLUS
 DN 124:29281
 TI Coupling reactions. Part 15. The reaction of 1-halo-1-lithiocyclopropanes with CuCl_2 : competition between 'carbene dimerization' and oxidative coupling.
 AU Borer, Markus; Loosli, Thomas; Minger, Andrea; Neuenschwander, Markus; Engel, Peter
 CS Institut Organische Chemie, Universitaet Bern, Bern, CH-3012, Switz.
 SO Helvetica Chimica Acta (1995), 78(5), 1311-24
 CODEN: HCACAV; ISSN: 0018-019X
 PB Verlag Helvetica Chimica Acta
 DT Journal
 LA German
 OS CASREACT 124:29281
 AB 2-Phenyl- and 2-phenylthio-1-chloro-1-lithiocyclopropanes reacted at low

temperature with CuCl₂ to give diastereoisomeric mixts. of bi(cyclopropyls) as oxidative-coupling products and of bi(cyclopropylidenes) as carbene dimers. The relative amount of the latter increased $\leq 70\%$ with CuCl₂ concentration and reaction time. Diastereoselectivity of the reaction was low. The conformational behavior of 1,1'-dichloro-1,1'-bi(cyclopropyls) is discussed. 1-Bromo-1-lithiocyclopropanes gave carbene dimers and no coupling products. The only exception was 1-bromo-1-lithio-2-phenylcyclopropane which gave some percentage of coupling products besides carbene dimers.

L5 ANSWER 34 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1995:834669 CAPLUS

DN 124:55392

TI Coupling reactions. Part 14. Copper(II)-chloride catalyzed 'carbene dimerization' of 1-halo-1-lithiocyclopropanes. A simple route to bi(cyclopropylidenes)

AU Loosli, Thomas; Borer, Markus; Kulakowska, Iga; Minger, Andrea; Neuenschwander, Markus; Engel, Peter

CS Inst. Org. Chem., Univ. Bern, Bern, CH-3012, Switz.

SO Helvetica Chimica Acta (1995), 78(5), 1144-65

CODEN: HCACAV; ISSN: 0018-019X

PB Verlag Helvetica Chimica Acta

DT Journal

LA English

OS CASREACT 124:55392

AB A series of bi(cyclopropylidenes) was prepared in a simple one-pot reaction by halo-lithio exchange between 2-substituted 1,1-dibromocyclopropanes and BuLi followed by treatment with CuCl₂ (20-85% yield). The yields depended strongly on reaction parameters. Cross-couplings between different carbenoids were possible.

L5 ANSWER 35 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1995:794621 CAPLUS

DN 123:339239

TI Drastic effects of dioxygen on the selectivity of reduction by LiAlH₄. Milder conditions made possible by strictly anaerobic conditions

AU Peralez, Eric; Negrel, Jean-Claude; Chanon, Michel

CS Faculte Sciences St. Jerome, Universite Aix-Marseille III, Marseille, 13013, Fr.

SO Tetrahedron Letters (1995), 36(36), 6457-60

CODEN: TELEAY; ISSN: 0040-4039

PB Elsevier

DT Journal

LA English

OS CASREACT 123:339239

AB Reduction of the gem-disubstituted cyclopropane 1-bromo-2,2-diphenylcyclopropanecarboxylic acid with LiAlH₄ yields different results under strictly anaerobic conditions and loosely anaerobic ones. Under strictly anaerobic conditions, (+)-1-bromo-2,2-diphenylcyclopropanemethanol was quant. reduced to 2,2-diphenylcyclopropanemethanol with complete racemization. These observations are explained by a radical chain mechanism. They open the way to redns. by LiAlH₄ under mild conditions.

L5 ANSWER 36 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1995:594381 CAPLUS

DN 123:198417

TI Gem-dichlorocyclopropanes as antitumor agents

IN Magarian, Robert A.; Pento, Joseph T.; Griffin, May T.

PA Research Corporation Technologies, Inc., USA

SO U.S., 22 pp. Cont.-in-part of U.S. Ser. No. 812,246, abandoned.

CODEN: USXXAM

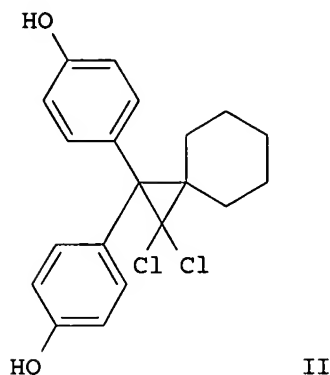
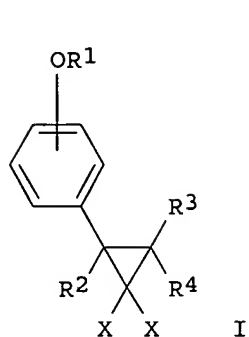
DT Patent

LA English

FAN.CNT 7

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5397802	A	19950314	US 1993-20922	19930222 <--
	US 4879315	A	19891107	US 1987-98945	19870921 <--

	US 5098903	A	19920324	US 1989-432564	19891106 <--
	US 5663207	A	19970902	US 1995-376961	19950120 <--
	US 5658927	A	19970819	US 1995-480212	19950607 <--
	US 5658914	A	19970819	US 1995-480215	19950607 <--
	US 5658951	A	19970819	US 1995-487717	19950607 <--
PRAI	US 1980-128040	B2	19800307		
	US 1980-166255	B2	19800707		
	US 1982-363429	B2	19820330		
	US 1987-98945	A2	19870921		
	US 1989-432564	A2	19891106		
	US 1991-812246	B2	19911219		
	US 1993-20922	A1	19930222		
	US 1995-376961	A2	19950120		
OS	MARPAT 123:198417				
GI					

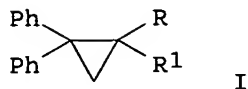


AB The present invention relates to gem-dichlorocyclopropanes I or any pharmaceutically acceptable salt thereof, in which X is a halogen atom; R1 is a hydrogen; R2 is a hydroxyphenyl; and R3 is a cyclopentyl group having the first position carbon and the fifth position carbon bonded to the same carbon of the cyclopropane wherein the R4 group is absent. I (Analog II derivs.) demonstrate antiproliferative activity toward MCF-7 cells, in vitro and are generally not reversed by estradiol or having intrinsic estrogenicity (except the hydroxyphenyl derivative II). Thus, e.g., demethylation of 1,1-dichloro-2,2-bis-(p-methoxyphenyl)spiro[2.5]octane (preparation given) afforded 54% II which displayed estrogen receptor binding affinity of 0.62 % (relative to that of estradiol = 100%) and inhibition of MCF-7 human breast cancer cell of 21.3%.

L5 ANSWER 37 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1995:560783 CAPLUS
 DN 123:227499
 TI Thermal decomposition of homoquinones. [Erratum to document cited in CA123:169111]
 AU Oshima, Takumi; Tamada, Kazushi; Nagai, Toshikazu
 CS Inst. Chem., Osaka Univ., Osaka, 560, Japan
 SO Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1995), (9), 1199
 CODEN: JCPRB4; ISSN: 0300-922X
 PB Royal Society of Chemistry
 DT Journal
 LA English
 AB The errors were not reflected in the abstract or the index entries.

L5 ANSWER 38 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1995:328082 CAPLUS
 DN 123:9080
 TI Reactivity of the acids of trivalent phosphorus and their derivatives. Part III. The P-O- ions in reaction with activated alkyl bromides. Attack on bromine vs. electron transfer
 AU Dembkowski, Leszek; Rachon, Janusz
 CS Department of Organic Chemistry, Technical University of Gdansk, Gdansk,

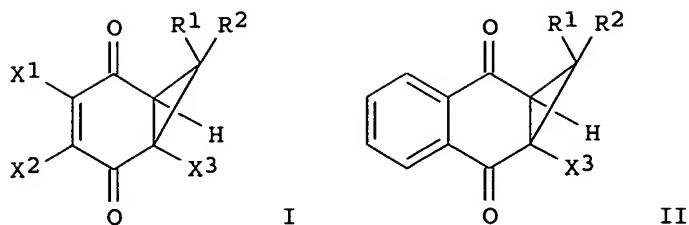
80-952, Pol.
 SO Phosphorus, Sulfur and Silicon and the Related Elements (1994),
 91(1-4), 251-62
 CODEN: PSSLEC; ISSN: 1042-6507
 PB Gordon & Breach
 DT Journal
 LA English
 OS CASREACT 123:9080
 GI



AB The mechanism of reductive debromination in the course of the reaction of sodium dialkyl (diaryl) phosphites as well as the sodium salt of dibenzylphosphine oxide with activated alkyl bromides in THF has been investigated. Probable mechanisms namely, SET and X-philic substitution are discussed. The cyclopropyl system was chosen for the study of this reaction. Thus, bromocyclopropanes I [R = Br, CO₂Me, CONH₂, cyano, P(O)(OMe)₂, R₁ = Br] gave I (R₁ = H) upon debromination. The results of the carried out expts. (unrearranged products, no influence of light) suggests that the cyclopropyl radical intermediate (if it is formed) does not participate in the product-determining step of the reductive debromination under the action of the >P-O⁻ ions.

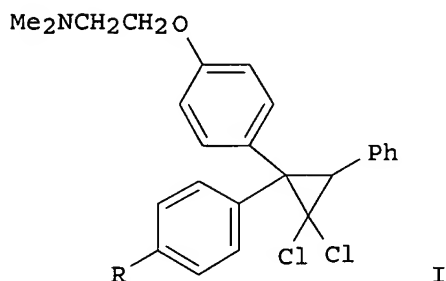
L5 ANSWER 39 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1995:301276 CAPLUS
 DN 122:105104
 TI Kinetics of homogeneous reduction of bromo- and chloroorganic compounds by radical anions of anthracene in the presence of NiIII and CoII ions
 AU Yanilkin, V. V.; Maximyuk, N. I.; Kargin, Yu. M.
 CS A. E. Arbuzov Inst. Org. Phys. Chem., Kazan' Sci. Cent. Russian Acad. Sci., Kazan', 420083, Russia
 SO Izvestiya Akademii Nauk, Seriya Khimicheskaya (1994), (6), 1022-4
 CODEN: IASKEA
 PB Institut Organicheskoi Khimii im. N. D. Zelinskogo Rossiiskoi Akademii Nauk
 DT Journal
 LA Russian
 AB The effect of NiIII and CoII ions on the kinetics of homogeneous reduction of some aromatic, aliphatic and cyclic bromo- and chloroorg. compds. by anthracene radical anions has been studied by polarog. The catalytic activity of the metal ions increases with decreasing reducibility of the halogenated substrates.

L5 ANSWER 40 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1995:237498 CAPLUS
 DN 123:169111
 TI Thermal decomposition of homoquinones
 AU Oshima, Takumi; Tamada, Kazushi; Nagai, Toshikazu
 CS Inst. Chem., Osaka Univ., Osaka, 560, Japan
 SO Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1994), (22), 3325-33
 CODEN: JCPRB4; ISSN: 0300-922X
 PB Royal Society of Chemistry
 DT Journal
 LA English
 GI



AB Thermolysis of diphenyl- and biphenyl-2,2'-diyl-substituted homobenzoquinones I (X1 = H, Me, Br, Cl; X2 = H, Br; X3 = Me, Cl, Br; R1 = R2 = Ph; R1R2 = biphenyl-2,2'-diyl) and homonaphthoquinones II (same X3, R1, R2) was investigated at 100°C. The biphenyl-2,2'-diylhomobenzoquinones I and II with halo substituents were thermolyzed to 2-(9-halofluoren-9-yl)-1,4-benzoquinones and -1,4-naphthoquinones, resp., via a cyclopropane ring-opening reaction. The diphenylhomobenzoquinones were thermally less labile so that only ones bearing a bromo substituent underwent a cyclopropane ring-opening to afford a different type of product, 2-bromo-3-diphenylmethylene-2,3-dihydro-1,4-benzoquinones and -1,4-naphthoquinone, resp. The product change was attributed to the steric requirement of the intermediary allyl cations. Some reactions of the products were investigated on the basis of Frontier MO considerations. The different behavior of the bromoquinones 3c-e and 10 was interpreted on the basis of Frontier MO considerations.

L5 ANSWER 41 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1995:127411 CAPLUS
 DN 122:80732
 TI Synthesis of Z-1,1-dichloro-2-[4-(2-dimethylaminoethoxy)phenyl]-2-(4-hydroxyphenyl)-3-phenylcyclopropane and Z-1,1-dichloro-2-[4-(2-dimethylaminoethoxy)phenyl]-2-(4-chlorophenyl)-3-phenylcyclopropane
 AU Singh, Satendra; Magarian, Robert A.
 CS College of Pharmacy, University of Oklahoma, Oklahoma City, OK, 73190, USA
 SO Chemistry Letters (1994), (10), 1821-4
 CODEN: CMLTAG; ISSN: 0366-7022
 DT Journal
 LA English
 GI

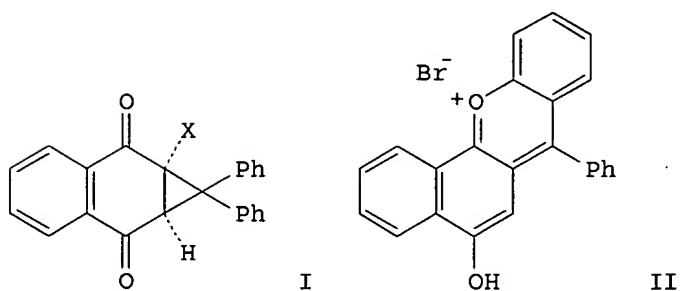


AB The synthesis of title compds. I (R = HO, Cl) is described. The key steps in the synthesis are the preparation of the pure Z-ethene, the stereospecific addition of dichlorocarbene, amino-dehalogenation and deprotection of the phenol. Heptafluorotolyl protecting group is used in the synthesis of pure Z-ethene which is stable under basic heterogeneous cyclopropanation reaction conditions.

L5 ANSWER 42 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1994:604530 CAPLUS
 DN 121:204530
 TI Reactivity of the acids of trivalent phosphorus and their derivatives. Part I. Reductive debromination in the reactions of the P-O- ions with 2-bromo esters
 AU Dembkowski, Leszek; Rachon, Janusz

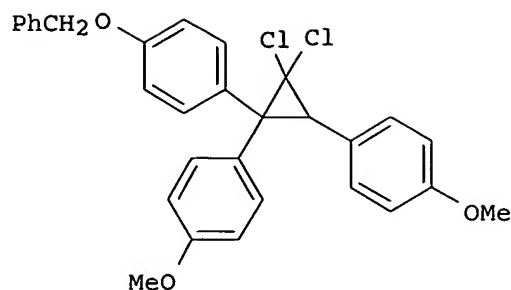
CS Dep. Org. Chem., Tech. Univ. Gdansk, Gdansk, 80-952, Pol.
 SO Phosphorus, Sulfur and Silicon and the Related Elements (1994),
 88(1-4), 27-37
 CODEN: PSSLEC; ISSN: 1042-6507
 DT Journal
 LA English
 AB The reaction of α -bromo carboxylates with sodium dialkyl or diaryl
 phosphites and the sodium salt of dibenzylphosphine oxide afforded
 debromination products in THF or alcs. as the solvents. Probable
 mechanisms are discussed.

L5 ANSWER 43 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1994:579451 CAPLUS
 DN 121:179451
 TI Photoisomerization of bromonaphthoquinone-fused diphenylcyclopropane into
 xanthylium salt in the presence of arene donors
 AU Moriwaki, Hiroshi; Oshima, Takumi; Nagai, Toshikazu
 CS Coll. Gen. Education, Osaka Univ., Toyonaka, 560, Japan
 SO Journal of the Chemical Society, Chemical Communications (1994),
 (14), 1681-2
 CODEN: JCCCAT; ISSN: 0022-4936
 DT Journal
 LA English
 GI



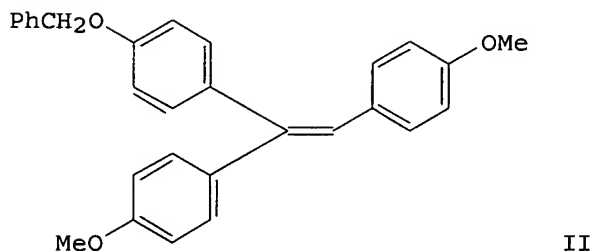
AB Irradiation of naphthoquinone-fused diphenylcyclopropane I (X = Br) in the
 presence of naphthalene, dimethoxybenzene or triphenylamine gave
 xanthylium salt II [benzo[c]xanthylium] via an intramol. cyclization of
 intermediary 2-bromo-3-diphenylethylene-2,3-dihydronaphthoquinone.
 Naphthoquinone-fused diphenylcyclopropane I (X = Cl, Me) did not undergo a
 photochem. reaction.

L5 ANSWER 44 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1994:569770 CAPLUS
 DN 121:169770
 TI A comparison of the antitumor activity of two triarylcyclopropyl
 antiestrogens on human breast cancer cells in culture
 AU Jain, Pramod T.; Pento, J. Thomas; Magarian, Robert A.
 CS College Pharmacy, Univ. Oklahoma, Oklahoma City, OK, 73190, USA
 SO Anti-Cancer Drugs (1994), 5(4), 429-36
 CODEN: ANTDEV; ISSN: 0959-4973
 DT Journal
 LA English
 GI



AB (E)- and (Z)-1,4-dichloro-2-[4-(benzyloxy)phenyl]-2,3-bis(4-methoxyphenyl)cyclopropane (I) and (Z)-1,1-dichloro-2-[4-(benzyloxy)phenyl]-2-(4-methoxyphenyl)-3-phenylcyclopropane (II) are two members of a novel series of triarylcyclopropyl compds. which have been shown to be pure antiestrogens. In the present study, the antiproliferative activity of I and II was examined on estrogen receptor (ER)-pos. MCF-7 and ER-neg. MDA-MB-231 human breast cancer cells and A-549 human lung cancer cells. Compound I inhibited the growth of MCF-7 cells in a dose-related manner over a concentration range of 10^{-13} to 10^{-5} M while compound II inhibited MCF-7 cell growth in a dose-related manner over a concentration range of 10^{-9} to 10^{-5} M. Further, neither compound altered the growth of MDA-MB-231 or A-549 cells. Coadministration of estradiol reversed the antiproliferative activity of I but not II on MCF-7 cells. Both compds. bound specifically to ER in MCF-7 cells; however, the relative binding activity of I was five times greater than estradiol and 5000 times greater than II. The influence of I and II on the cell surface morphol. of MCF-7 and MDA-MB-231 cell was studied using SEM. Both compds., at a concentration of 10^{-6} M, reduced the d. of microvilli on MCF-7 cells, which was reversed by coadministration of estradiol (10^{-8} M). These compds. did not alter the cell surface morphol. of ER-neg. MDA-MB-231 cells. In conclusion, the results of this study indicate that compound I is more potent than II as an inhibitor of breast cancer cell proliferation and suggest that a polar methoxy group on the β Ph ring of compound I contributes to ER binding and ER-mediated antitumor activity. Further, these results suggest that one or both of these compds. may be highly effective in the treatment of estrogen-dependent breast cancer.

L5 ANSWER 45 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1994:557214 CAPLUS
 DN 121:157214
 TI (Z)-1,1-dichloro-2-(4-benzyloxyphenyl)-2,3-bis(4-methoxyphenyl)cyclopropane: the synthesis and enantiomeric separation of an antitumor agent
 AU Meyer, Karen L.; Magarian, Robert A.
 CS Coll. Pharm., Univ. Oklahoma, Oklahoma City, OK, 73190, USA
 SO Chirality (1994), 6(1), 41-5
 CODEN: CHRLEP; ISSN: 0899-0042
 DT Journal
 LA English
 OS CASREACT 121:157214
 GI



AB (Z)-1,1-dichloro-2-(4-benzyloxyphenyl)-2,3-bis(4-

methoxyphenyl)cyclopropane (I), a potential antitumor agent designed to treat breast cancer, was prepared in three steps. A stereospecific palladium-catalyzed cross coupling reaction which provided the intermediate (Z)-triaryl alkene II was a crucial step in the synthesis. Makosza phase transfer reaction on II gave the enantiomeric (Z)-dichlorocyclopropane derivs. I which were resolved by semipreparative HPLC on a chiral stationary phase consisting of amylose tris-3,5-dimethylphenylcarbamate coated on silica gel.

L5 ANSWER 46 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1994:556910 CAPLUS
DN 121:156910
TI Photoinduced reductive cleavage of diarylcyclopropanes fused with
bromonaphthoquinone in the presence of amines
AU Moriwaki, Hiroshi; Oshima, Takumi; Nagai, Toshikazu
CS Coll. Gen. Educ., Osaka Univ., Toyonaka, 560, Japan
SO Journal of the Chemical Society, Chemical Communications (1994),
(3), 255-6
CODEN: JCCCAT; ISSN: 0022-4936
DT Journal
LA English
OS CASREACT 121:156910
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

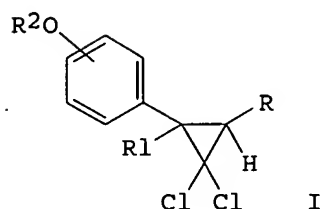
AB Irradiation of the title diarylcyclopropanes I-II in the presence of amines results in the dimerization of the intermediary allyl radicals III-IV, formed by the reductive cleavage of the cyclopropane ring.

L5 ANSWER 47 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1994:322895 CAPLUS
DN 120:322895
TI Nickel-Catalyzed Cross Coupling of Cyclopropyl Grignard Reagents with
Benzylic Dithioacetals. Regioselective Ring Opening of Cyclopropylcarbinyl
Organometallic Intermediates. Novel Synthesis of Substituted Dienes
AU Yu, Chun Chi; Ng, Dennis K. P.; Chen, Bi-Ling; Luh, Tien-Yau
CS Department of Chemistry, National Taiwan University, Taipei, 106, Taiwan
SO Organometallics (1994), 13(4), 1487-97
CODEN: ORGND7; ISSN: 0276-7333
DT Journal
LA English
OS CASREACT 120:322895

AB The reactions of various cyclopropylmagnesium bromides with benzylic dithioacetals afforded the corresponding substituted conjugate dienes in good yields. Thus, for example, NiCl₂(PPh₃)₂-catalyzed reaction of 1-naphthaldehyde 1,2-ethanedithiol dithioacetal with cyclopropylmagnesium bromide afforded 66% 1-C₁₀H₇CH:CHCH:CH₂. These reactions can be considered as using cyclopropyl anion as an allyl anion synthon. The reaction shows high regio- and stereoselectivity to give E isomers predominantly, if not exclusively. The nature of the substituent(s) in the ring-opening process in the (cyclopropylcarbinyl)nickel intermediate has been investigated in detail. An aryl or vinyl substituent gives regioselective ring opening at the more substituted carbon-carbon bond, an alkyl substituent being unselective. β-Heteroatom elimination in these nickel-catalyzed cross-coupling reactions has been used for regioselective synthesis of 1,4-dienes.

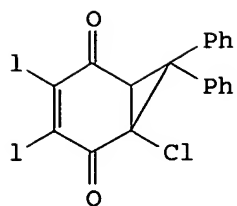
L5 ANSWER 48 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1994:322414 CAPLUS
DN 120:322414
TI Molecular Structures and Conformational Studies of Triarylcyclopropyl and
Related Nonsteroidal Anti-Estrogens
AU Hossain, M. Bilayet; van der Helm, Dick; Schmitz, Francis J.; Pordesimo,
Eva O.; Magarian, Robert A.; Meyer, Karen L.; Overacre, Lynette B.; Day,
Billy W.

CS Department of Chemistry and Biochemistry, University of Oklahoma, Norman,
OK, 73019, USA
SO Journal of Medicinal Chemistry (1994), 37(11), 1670-83
CODEN: JMCMAR; ISSN: 0022-2623
DT Journal
LA English
GI

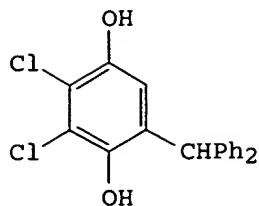


AB Mol. structures and conformational characteristics of a series of 1,1-dichloro-2,2,3-triarylcyclopropanes I (R, R1 = Ph, 4-MeOC6H4; R2 = Me, PhCH2, Me2NCH2CH2) (DTACs), which were reported previously as distinctly antiestrogenic and inhibitors of the estrogen-receptor-pos. MCF-7 human breast cancer cells in culture, are reported. In addition, structural and conformational features of I were compared to the first-known nonsteroidal anti-estrogen, MER25, and the clin. useful anti-estrogen tamoxifen. The mol. structures of I were determined by X-ray diffraction. Crystallog. structures show that I have nearly the same relative conformation for the three aryl rings (designated as a "nonpropeller" conformation), in contrast to the observed "propeller" conformation for the three rings in all known triarylethylenes. Systematic conformational searches were performed to find the conformational preferences of I, MER25, and tamoxifen using idealized model compds. built from their resp. crystal structure. Energy-minimization and conformational-search studies demonstrated that all I have a common, single global min. energy conformer for their central core containing the dichlorotriarylcyclopropyl system, which is similar to that found in their crystal structures. Conformational search of MER25 showed that it can assume a number of low-energy conformers of which 2 [1 anti (A1), and 1 gauche (G1A)], have about the same energy. The anti conformation is similar to the one observed in its crystal structure and resembles the estrogenic E-isomer of tamoxifen, while the lowest energy gauche conformer of MER25 resembles more closely the antiestrogenic Z-isomer of tamoxifen. NMR of MER25 showed that the mol. exists predominantly in the anti conformation in solution. A comparative review of the structural features and bioactivities of tamoxifen, I, and MER25 provides a possible explanation for their low estrogen receptor binding affinity which is common to these compds. together with their antiestrogenic activity.

L5 ANSWER 49 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1994:298159 CAPLUS
DN 120:298159
TI Hydrogenolysis of gem-diphenylcyclopropanes fused with trihalogenated quinones
AU Oshima, Takumi; Nakajima, Yuichi; Nagai, Toshikazu
CS Coll. Gen. Educat., Osaka Univ., Toyonaka, 560, Japan
SO Chemistry Letters (1993), (11), 1977-80
CODEN: CMLTAG; ISSN: 0366-7022
DT Journal
LA English
OS CASREACT 120:298159
GI



I



II

AB Palladium-catalyzed hydrogenolysis of gem-diphenylcyclopropanes fused with trihalogenobenzoquinones, e.g., I, gave diphenylmethylhydroquinones, e.g., II. Water took part in the reaction to yield α -hydroxydiphenylmethyl- and benzoylhydroquinones. The selective ring-cleavage was interpreted in terms of the π -conjugative interaction of cyclopropane.

L5 ANSWER 50 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1994:69769 CAPLUS

DN 120:69769

TI The influence of a novel cyclopropyl antiestrogen (compound 7a) on human breast cancer cells in culture

AU Jain, Pramod T.; Pento, J. Thomas; Magarian, Robert A.

CS Coll. Pharm., Univ. Oklahoma, Oklahoma City, OK, 73190, USA

SO Breast Cancer Research and Treatment (1993), 25(3), 225-33

CODEN: BCTRD6; ISSN: 0167-6806

DT Journal

LA English

AB Compound 7a ([Z]-1,1-dichloro-2,3-diphenyl-2-(4-(2-dimethylamino)ethoxy)phenyl)cyclopropane, dihydrogen citrate salt is a novel cyclopropyl antiestrogen which was shown to be an estrogen antagonist without estrogen agonist activity. The antiproliferative activity of 7a was examined on estrogen receptor (ER) pos. MCF-7 and ER-neg. MDA-MB-231 human breast cancer cells and A-549 human lung cancer cells. Compound 7a inhibited the growth of MCF-7 cells in a dose-related manner over a concentration range of 10^{-9} to 10^{-5} M, but did not alter the growth of MDA-MB-231 or A-549 cells. The antiproliferative activity of 7a (10^{-7} M) on MCF-7 cells was reversed by co-administration of estradiol (10^{-8} M). An ER-dependent mechanism of action is also supported by the specific ER binding of 7a in MCF-7 cells observed in this study. A study of cell surface morphol. using SEM revealed that compound 7a at 10^{-6} M reduced the length and d. of microvilli (MV) on MCF-7 cells, which was reversed by co-administration of estradiol (10^{-8} M). Compound 7a did not alter the cell surface morphol. of ER-neg. MDA-MB-231 cells. In conclusion, 7a inhibited the growth of ER-pos. MCF-7 cells in an estradiol-reversible manner, and had no effect on ER-neg. MDA-MB-231 cells or A-549 lung cancer cells. The results of this study support the antiestrogenic action of 7a previously observed in vivo and suggest that 7a may be highly effective in the treatment of estrogen-dependent breast cancer and/or in the prophylactic treatment of women with a high risk of breast cancer development.

L5 ANSWER 51 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1994:30430 CAPLUS

DN 120:30430

TI Generation, reactions, direct observation, and kinetics of decafluorodiphenylcarbene

AU Tomioka, Hideo; Mizutani, Kenzoh; Matsumoto, Kenji; Hirai, Katsuyuki

CS Fac. Eng., Mie Univ., Tsu, 514, Japan

SO Journal of Organic Chemistry (1993), 58(25), 7128-34

CODEN: JOCEAH; ISSN: 0022-3263

DT Journal

LA English

AB Bis(pentafluorophenyl)diazomethane (1a) was prepared, and reactivities of perfluorodiphenylcarbene (2a) generated by photolysis of 1a were investigated not only in terms of product anal. but also by using matrix isolation spectroscopy as well as laser flash photolysis techniques. Product distributions observed in the reactions of 2a in benzene, cyclohexane, and trans-1,2-dichloroethylene suggested that 2a reacted with those substrates with moderate reactivities toward carbene mostly in its

singlet state presumably owing to the increased electrophilicity induced by fluorine substituents while the reaction with the alkane C-H bonds in concerted fashion was retarded partly due to steric effect in the singlet state which thus decayed to the triplet states that underwent predominantly H atom abstraction forming tetraarylethane. Photolysis of 1a in Ar matrix at 10 K produced 2a which was observed by IR and UV and shown to react with doped O₂ to produce ultimately perfluorobenzoate by way of the carbonyl oxide and dioxirane, both intermediates being characterized by IR and UV/vis spectroscopy. Laser flash photolysis of 1a in cyclohexane solution produced a transient absorption ($\lambda = 320$ nm) due to bis(pentafluorophenyl)methyl radical (14a) obviously produced by H atom abstraction of the triplet 2a, which was trapped by oxygen to generate the carbonyl oxide, and also by 1,4-cyclohexadiene to form the Me radical (14a). The lifetime of the triplet 2a was estimated to be .apprx.1 μ s.

L5 ANSWER 52 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1993:538584 CAPLUS
DN 119:138584

TI The nature of electron transfer from metal surfaces to the carbon-halogen bond

AU Walborsky, H. M.; Hamdouchi, C.

CS Dittmer Lab. Chem., Florida State Univ., Tallahassee, FL, 32306, USA

SO Journal of the American Chemical Society (1993), 115(14), 6406-8

CODEN: JACSAT; ISSN: 0002-7863

DT Journal

LA English

AB Electrochem. reduction of organic halides at a glassy carbon electrode is reported. Electron transfer and cleavage of the carbon-halogen bond for the substrates studied are concerted.

L5 ANSWER 53 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1993:494883 CAPLUS
DN 119:94883

TI Chiroptical properties of the benzene chromophore in substituted 1,1-diphenylcyclopropanes

AU Gawronski, J.; Gawronska, K.; Radocki, D.; Walborsky, H. M.

CS Dep. Chem., A. Mickiewicz Univ., Poznan, 60-780, Pol.

SO Tetrahedron: Asymmetry (1993), 4(3), 383-92

CODEN: TASYE3; ISSN: 0957-4166

DT Journal

LA English

AB The CD spectra of 29 derivs. of 1,1-diphenylcyclopropane of known absolute configuration have been measured. The min.-energy perpendicular conformation of these mols. follows from MMX calcns. as well as from available x-ray data. A contribution of substituents X and Y in the 2-position of the cyclopropane ring to the rotatory strength of the Ph chromophores is evaluated, and a simple rule relating the size and donor character of the substituent to the sign of the 1Lb and 1La Cotton effects is proposed.

L5 ANSWER 54 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1993:408372 CAPLUS
DN 119:8372

TI Cyclopropylidene dianion equivalent. Preparation of 1,1-dilithio-2,2-diphenylcyclopropane

AU Oku, Akira; Ose, Yasuyoshi; Kamada, Tohru; Yoshida, Tomohiro

CS Dep. Chem. Mater. Technol., Kyoto Inst. Technol., Kyoto, 606, Japan

SO Chemistry Letters (1993), (3), 573-6

CODEN: CMLTAG; ISSN: 0366-7022

DT Journal

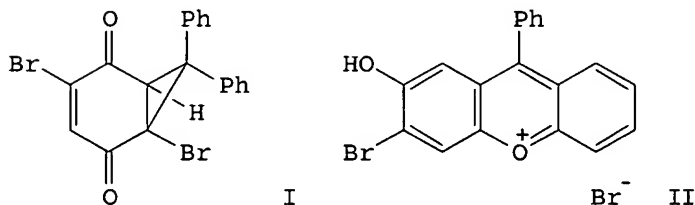
LA English

AB The title compound was prepared by the treatment of the corresponding 1,1-dibromocyclopropane with lithium naphthalene radical anion (Li-C₁₀H₈). Trapping of the dilithio compound by chlorotrimethylsilane provided evidence for its highly basic profile which can compete with silylation.

L5 ANSWER 55 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1993:213135 CAPLUS
DN 118:213135

TI Mechanism of organocalcium reagent formation
 AU Walborsky, H. M.; Hamdouchi, C.
 CS Dittmer Lab. Chem., Florida State Univ., Tallahassee, FL, 32306, USA
 SO Journal of Organic Chemistry (1993), 58(5), 1187-93
 CODEN: JOCEAH; ISSN: 0022-3263
 DT Journal
 LA English
 AB The stereochem. of the reaction of (S)-(+)-1-bromo- and (S)-(+)-1-chloro-1-methyl-2,2-diphenylcyclopropane and (S)-(+)-1-bromo-1-(methoxymethyl)-2,2-diphenylcyclopropane with calcium-aromatic complexes is reported as is reaction with a radical clock, 6-chloro-6-methyl-1-heptene. Evidence is presented which indicates that these reactions occur by a single electron transfer to yield free radicals as intermediates. The reduction of a number of these substrates with solns. of calcium dissolved in liquid ammonia is also reported. Metallic bronze $\text{Ca}(\text{NH}_3)_6$ in THF at -30° behaves as a solid surface in its reaction with alkyl halides.

L5 ANSWER 56 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1993:212827 CAPLUS
 DN 118:212827
 TI Xanthylum salts from thermolysis of diphenylcyclopropanes fused with bromo-substituted 1,4-benzoquinones
 AU Oshima, T.; Nagai, T.
 CS Coll. Gen. Educ., Osaka Univ., Toyonaka, 560, Japan
 SO Tetrahedron Letters (1993), 34(4), 649-52
 CODEN: TELEAY; ISSN: 0040-4039
 DT Journal
 LA English
 OS CASREACT 118:212827
 GI



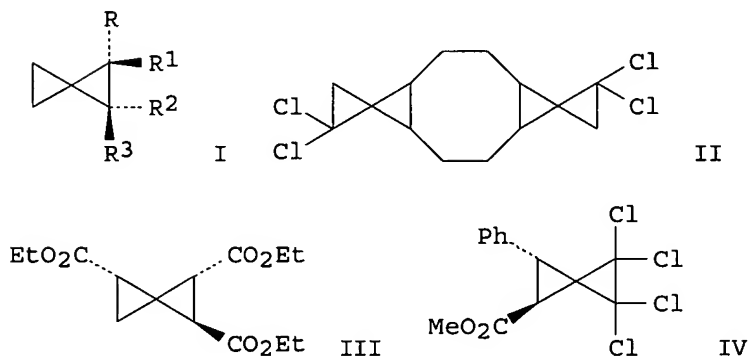
AB Thermolysis of diphenylcyclopropanes, e.g., I, fused with bromo-substituted 1,4-benzoquinones resulted in the formation of xanthylum salts, e.g., II, via ring opening accompanied by 6π electrocyclization.

L5 ANSWER 57 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1993:123834 CAPLUS
 DN 118:123834
 TI Chiral carbenoids: their formation and reactions
 AU Topolski, M.; Duraisamy, M.; Rachon, J.; Gawronski, J.; Gawronska, K.; Goedken, V.; Walborsky, H. M.
 CS Dittmer Lab. Chem., Florida State Univ., Tallahassee, FL, 32306, USA
 SO Journal of Organic Chemistry (1993), 58(3), 546-55
 CODEN: JOCEAH; ISSN: 0022-3263
 DT Journal
 LA English
 AB Carbenoids, generated by metalation or halogen-metal exchange reactions, have been prepared from chiral vinyl and cyclopropyl halides. The reactivity and stereochem. observed in the reaction of these carbenoids has been interpreted as being due to metal-assisted ionization.

L5 ANSWER 58 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1993:59143 CAPLUS
 DN 118:59143
 TI Role of nickel(II) and cobalt(II) ions in the mediated reduction of gem-dichlorocyclopropanes

AU Yanilkin, V. V.; Maksimyyuk, N. I.; Gritsenko, E. I.; Kargin, Yu. M.;
Garifullin, B. M.
CS A. E. Arbuzov Inst. Org. Phys. Chem., Kazan, 420083, Russia
SO Izvestiya Akademi Nauk, Seriya Khimicheskaya (1992), (2), 292-8
CODEN: IASKEA; ISSN: 1026-3500
DT Journal
LA Russian
OS CASREACT 118:59143
AB The Co(II) and Ni(II) effect on the kinetics of homogeneous reduction of the
title compds. with anthracene anion radicals has been studied. The Co(II)
and Ni(II) ions were shown to accelerate this process. The observed effect
depends on the nature and concentration of metal ion and on the type of the title
cyclopropane. Two mechanisms are discussed, consisting in homogeneous
reduction with anthracene anion radicals of metal ions to form the more
efficient reducing mono- and zero-valence metals, and also in activation
of the dichlorocyclopropane mol. via prior coordination with metal ion.

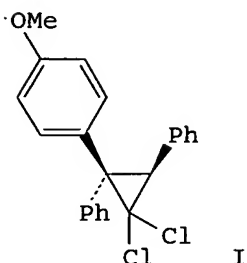
LS ANSWER 59 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1993:6410 CAPLUS
DN 118:6410
TI Substituent effects on the structure of spiropentane
AU Irngartinger, Hermann; Gries, Stefan; Klaus, Philip; Gleiter, Rolf
CS Org.-Chem. Inst., Univ. Heidelberg, Heidelberg, D-6900, Germany
SO Chemische Berichte (1992), 125(11), 2503-12
CODEN: CHBEAM; ISSN: 0009-2940
DT Journal
LA German
GI



AB In order to investigate the influence of substituents on the bond lengths
of the spiropentane framework, the mol. structures of the spiropentane
derivs. I (R = Bz, R1, R2 = H, R3 = Ph; R, R1 = Ph, R2 = H, R3 = CO2H; R,
R1 = Ph, R2, R3 = Cl, F) and II-IV have been determined by x-ray anal. The
 π acceptor substituents (Bz, CO2R, Ph) shorten the distal bond of the
substituted three-membered ring by δ - 0.02 Å. The vicinal
bonds are lengthened by $\delta/2$. The π donor- σ acceptor groups
have the opposite effect [$\delta(\text{Cl}2) = 0.019$, $\delta(\text{F}2) = 0.056$
Å]. The influence of several substituents is additive. The longer
peripheral bond [1.530(14) Å] is varied to the same degree as the
shorter central bond [1.482(9) Å]. The second three-membered ring of
the spiropentane system is not affected. These results are explained
qual. by considering the valence MO's of a distorted spiropentane.
Quantum chemical calcns. using the 3-21 G basis set confirm this picture.

LS ANSWER 60 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1992:563434 CAPLUS
DN 117:163434
TI Antiestrogenic effects of (Z)-1,1-dichloro-2,3 diphenyl-2-(4-
methoxyphenyl)cyclopropane on human breast cancer cells in culture
AU Jain, Pramod T.; Pento, J. Thomas; Magarian, Robert A.
CS Coll. Pharm., Univ. Oklahoma, Oklahoma City, OK, 73190, USA
SO Anticancer Research (1992), 12(3), 585-90

DT Journal
LA English
GI



AB The antiproliferative activity of the title compound (I) was examined on estrogen receptor (ER)-pos. MCF-7 and ER-neg. MDA-MB-231 human breast cancer cells and A-549 human lung cancer cells using the hemocytometric trypan blue exclusion method. I inhibited the growth of MCF-7 cells in a dose-related manner over a concentration range of 10^{-9} to 10^{-5} M, but did not alter the growth of MDA-MB-231 or A-549 cells. Co-administration of estradiol (10^{-8} M) reversed the antiproliferative activity of I (10^{-7} M) on MCF-7 cells. Further, an ER-dependent mechanism of action is supported by the specific ER binding of I in MCF-7 cells observed in this study. The influence of I on the cell surface morphol. of MCF-7 and MDA-MB-231 cells was studied using SEM. Compound I at 10^{-6} M reduced the length and d. of microvilli (MV) on MCF-7 cells, which was reversed by co-administration of estradiol (10^{-8} M). This compound did not alter the cell surface morphol. of ER-neg. MDA-MB-231 cells. In conclusion, I and tamoxifen inhibited the growth of ER-pos. MCF-7 cells in an estradiol-reversible manner, and had no effect on ER-neg. MDA-MB-231 cells. The results of this study with human breast cancer cells suggest that I may be highly effective in the treatment of estrogen-dependent breast cancer and/or in the prophylactic treatment of women with a high risk of breast cancer development.

L5 ANSWER 61 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1992:420029 CAPLUS

DN 117:20029

TI Synthesis and biological evaluation of a series of gem-dichlorocyclopropanes as antitumor agents

AU Griffin, May T.; Magarian, Robert A.; Jain, Pramod; Pento, J. Thomas; Mousissian, Gorgin K.; Graves, Don C.

CS Coll. Pharm., Univ. Oklahoma, Oklahoma City, OK, 73190, USA

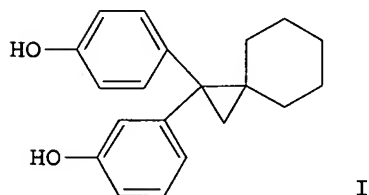
SO Anti-Cancer Drug Design (1992), 7(1), 49-66

CODEN: ACDDEA; ISSN: 0266-9536

DT Journal

LA English

GI



AB A series of Analog II (1,1-dichloro-2,3-diphenylcyclopropane) derivs. demonstrating lower intrinsic estrogenicity was synthesized. The compds. were tested for their ability to inhibit the growth-stimulating action of estradiol in the immature mouse uterus and estrogen receptor (ER) (+) MCF-7 human breast cancer cells in vitro. Like Analog II, the derivs.

were found to have no intrinsic estrogenicity (except I) and they antagonized estradiol action less completely than the lead compound Polarity improved the ER binding affinity of Analog II, but was quite small for all compds., except I, for which it was comparable to tamoxifen. Six compds. demonstrated antiproliferative activity toward MCF-7 cells, in vitro, and the mean inhibition period over 6 days ranged from 20 to 37%. Only I was reversed by estradiol.

L5 ANSWER 62 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1992:173590 CAPLUS

DN 116:173590

TI Reaction of a chiral cyclopropyl halide with alkali metals in alcohol solvents. The surface nature of the reaction

AU Walborsky, H. M.; Ollman, J.; Hamdouchi, C.; Topolski, M.

CS Dittmer Lab. Chem., Florida State Univ., Tallahassee, FL, 32306, USA

SO Tetrahedron Letters (1992), 33(6), 761-4

CODEN: TELEAY; ISSN: 0040-4039

DT Journal

LA English

OS CASREACT 116:173590

AB An alc. solution (MeOH, Me₂CHOH, Me₃COH) of (S)-(+)-1-bromo-1-methyl-2,2-diphenylcyclopropane was treated with an alkali metal (Li, Na, K). The resultant hydrocarbon, (R)-(-)-1-methyl-2,2-diphenylcyclopropane, was optically active and with retained configuration. As in Grignard reagent formation, the reactions are viewed as occurring largely on the surface of metal.

L5 ANSWER 63 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1992:120484 CAPLUS

DN 116:120484

TI Antiproliferative activity of a series of novel cyclopropyl antiestrogens on MCF-7 human breast cancer cells in culture

AU Jain, Pramod T.; Pento, J. Thomas; Magarian, Robert A.; Graves, Donald C.

CS Coll. Pharm., Univ. Oklahoma, Oklahoma City, OK, 73190, USA

SO Anti-Cancer Drugs (1991), 2(5), 487-93

CODEN: ANTDEV; ISSN: 0959-4973

DT Journal

LA English

AB The potential antitumor activity of a series of novel cyclopropyl compds., which lack estrogen agonist activity, was evaluated in estrogen receptor pos. human breast cancer cells (MCF-7) in culture. The compds. were evaluated to determine their antiproliferative activity at a concentration of 1 μ M at 2, 4 and 6 days of treatment by hemocytometer using the Trypan Blue exclusion method to count viable cells. Estradiol-induced reversibility of the antiproliferative activity of these compds. was also evaluated. The activity of a series of 19 diaryl- and triaryl cyclopropyl compds. was examined. Thirteen compds. inhibited the growth of MCF-7 cells while six were inactive. Five of the 13 active compds. produced antiproliferative activity which was reversed by 0.1 μ M estradiol. Thus, several of these novel cyclopropyl compds. may be useful in the treatment of hormone-dependent breast cancer and other estrogen-dependent tumors.

L5 ANSWER 64 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1992:40923 CAPLUS

DN 116:40923

TI Reaction of chiral cyclopropyl halides with samarium diiodide

AU Walborsky, H. M.; Topolski, Marek

CS Dittmer Lab. Chem., Florida State Univ., Tallahassee, FL, 32306-3006, USA

SO Journal of Organic Chemistry (1992), 57(1), 370-3

CODEN: JOCEAH; ISSN: 0022-3263

DT Journal

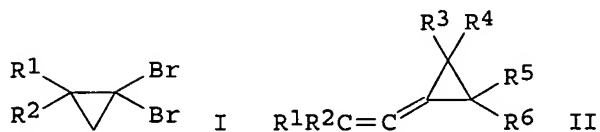
LA English

OS CASREACT 116:40923

AB The reduction of (S)-1-bromo-1-methyl-2,2-diphenylcyclopropane (I), (S)-1-bromo-1-(methoxymethyl)-2,2-diphenylcyclopropane, and (R)-1-fluoro-1-iodo-2,2-diphenylcyclopropane with SmI₂ was reported. Evidence for the formation of a Sm(III) intermediate was presented. The reaction of I with SmI₂ gave 58% (R)-1-methyl-2,2-diphenylcyclopropane (78% retention of configuration), 22% 2-methyl-1,1-diphenyl-1-propene, and

2% 2,5-dimethyl-1,1,6,6-tetraphenyl-1,5-hexadiene.

L5 ANSWER 65 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1991:655653 CAPLUS
DN 115:255653
TI General and convenient route to alkenylidenecyclopropanes: generation of
alkenylidenecarbene from 1,1-dibromocyclopropanes under phase-transfer
conditions
AU Isagawa, Kakuzo; Mizuno, Kazuhiko; Sugita, Hikaru; Otsuji, Yoshio
CS Dep. Appl. Chem., Univ. Osaka Prefect., Sakai, 591, Japan
SO Journal of the Chemical Society, Perkin Transactions 1: Organic and
Bio-Organic Chemistry (1972-1999) (1991), (9), 2283-5
CODEN: JCPRB4; ISSN: 0300-922X
DT Journal
LA English
OS CASREACT 115:255653
GI



AB Alkenylidenecyclopropane have been prepared in a stereospecific manner by the reaction of 1,1-disubstituted 2,2-dibromocyclopropanes with NaOH under phase-transfer conditions in the presence of alkenes. Thus, treating dibromocyclopropanes I (R₁ = Me, Ph, 2-naphthyl; R₂ = Me, Ph) with aqueous NaOH (or powdered NaOH) in the presence of Bu₄NHSO₄ and alkenes R₃R₄C:CR₅R₆ (R₃-R₆ = Me, Ph, etc.) in C₆H₆ gave good yields of the alkenylidenecyclopropanes II.

L5 ANSWER 66 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1991:655650 CAPLUS
DN 115:255650
TI Unusual addition of 1,2-alkylidenecarbenes to 1,3-dienes: 1,4-addition of rigid and flexible 1,3-dienes
AU Sugita, Hikaru; Mizuno, Kazuhiko; Mori, Toshiki; Isagawa, Kakuzo; Otsuji, Yoshio
CS Coll. Eng., Univ. Osaka Prefect., Sakai, 591, Japan
SO Angewandte Chemie (1991), 103(8), 1000-2 (See also Angew. Chem., Int. Ed. Engl., 1991, 30(8), 984-6)
CODEN: ANCEAD; ISSN: 0044-8249
DT Journal
LA German
OS CASREACT 115:255650
AB 3,3-Disubstituted alkylidene carbenes, generated from 1,1-dibromo-2,2-disubstituted cyclopropanes via double dehydrobromination under phase-transfer conditions, add to rigid and non-rigid 1,3-dienes to give 1,2- and 1,4-adducts in appreciable amts.

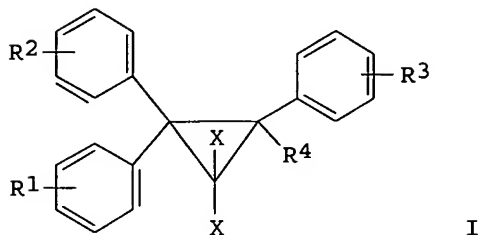
L5 ANSWER 67 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1991:631848 CAPLUS
DN 115:231848
TI Preparation of 1,1-dichloro-2,2,3-triarylcyclopropanes as antiestrogenic and antitumor agents
IN Magarian, Robert A.; Pento, Joseph T.; Day, Billy W.
PA University of Oklahoma, USA
SO U.S., 12 pp. Cont.-in-part of U.S. 4,879,315.
CODEN: USXXAM

DT Patent
LA English

FAN.CNT 7

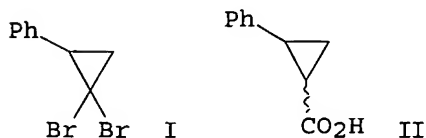
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5015666	A	19910514	US 1989-410938	19890922 <--

US 4879315	A	19891107	US 1987-98945	19870921 <--
PRAI US 1980-128040	B2	19800307		
US 1980-166255	B2	19800707		
US 1982-363429	B2	19820330		
US 1987-98945	A2	19870921		
OS MARPAT 115:231848				
GI				



AB The title compds. [I; R1 = H, HO, alkoxy, (un)substituted arylalkoxy; R2, R3 = H, HO, (un)substituted alkoxy, (alkyl)aryl; R4 = H; X = H, halo] or their pharmaceutically acceptable salts, were prepared. Addition reaction of 4-MeOC6H4MgBr with PhCH2COC6H4(OCH2Ph)-4 gave 2,2-diarylethene PhCH:C(C6H4OMe-4)C6H4(OCH2Ph)-4 which underwent a dichlorocarbene addition reaction to give the appropriate (R/S)-(Z)-cyclopropane. This, after debenzoylation by H over Pd/C, gave title compound (R/S)-(Z)-I (R1 = 4-HO, R2 = 4-MeO, R3 = R4 = H, X = Cl) (II) which in vitro in an estrogen receptor binding assay had receptor binding activity of 2.40% (estradiol = 100%). II at 30 µg in mice gave 28% inhibition of estradiol-induced uterotrophic activity, while tamoxifen had no antagonistic activity at doses of 30, 150, and 750 µg.

L5 ANSWER 68 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1991:514036 CAPLUS
 DN 115:114036
 TI Metal catalyzed carbonylation of gem-dibromocyclopropanes
 AU Grushin, Vladimir V.; Alper, Howard
 CS Ottawa-Carleton Chem. Inst., Univ. Ottawa, Ottawa, ON, K1N 6N5, Can.
 SO Tetrahedron Letters (1991), 32(28), 3349-52
 CODEN: TELEAY; ISSN: 0040-4039
 DT Journal
 LA English
 OS CASREACT 115:114036
 GI



AB The first examples of the catalytic carbonylation of gem-dibromocyclopropanes is described, using cobalt and nickel salts as catalysts under phase transfer conditions. Thus, 1,1-dibromo-2-phenylcyclopropane (I) in PhMe was added to a mixture of 5N KOH, CoCl₂, Ni(CN)₂·4H₂O, KCN, and PEG-400 in PhMe that had been pretreated with CO-H₂ and the mixture heated under CO-H₂ to give 72% a 1:1 mixture of the cis- and trans-phenylcyclopropanecarboxylic acids II.

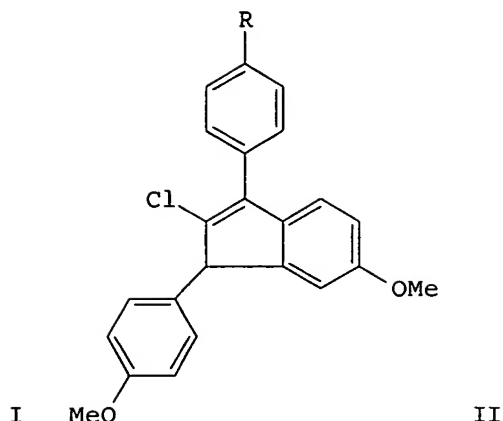
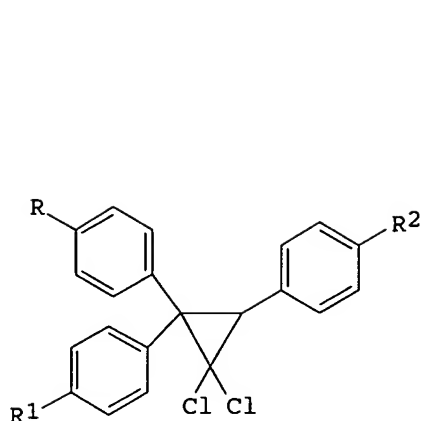
L5 ANSWER 69 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1991:255584 CAPLUS
 DN 114:255584

TI Mediated electrochemical reduction of 1,1-dichlorocyclopropanes
 AU Yanilkin, V. V.; Maksimyyuk, N. I.; Gritsenko, E. I.; Kargin, Yu. M.
 CS Inst. Org. Fiz. Khim. im. Arbuzova, Kazan, USSR
 SO Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya (1991), (1),
 261-2
 CODEN: IASKA6; ISSN: 0002-3353
 DT Journal
 LA Russian
 AB The unexpected possibility was observed of multiple acceleration of an
 electrochem. reaction with the participation of organic electron carriers
 with the substrate owing to the assistance of metal ions. The
 electrochem. monodechlorination of substituted 1,1-dichlorocyclopropanes
 (as substrates) showed that the effective rate constant (keff,M-1c-1) of
 electron transfer with the anion-radical of anthracene on the substrate
 increases in the presence of Ni(II) and Co(II) ions from 2- to 16-fold.

L5 ANSWER 70 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1991:163568 CAPLUS
 DN 114:163568
 TI Formation of a chiral 1-fluoro-2,2-diphenylcyclopropyl radical in the
 Barton decarboxylation reaction
 AU Gawronska, K.; Gawronski, J.; Walborsky, H. M.
 CS Dittmer Lab. Chem., Florida State Univ., Tallahassee, FL, 32306-3006, USA
 SO Journal of Organic Chemistry (1991), 56(6), 2193-7
 CODEN: JOCEAH; ISSN: 0022-3263
 DT Journal
 LA English
 OS CASREACT 114:163568
 GI For diagram(s), see printed CA Issue.
 AB The chiral 1-fluoro-2,2-diphenylcyclopropyl radical (I), generated in the
 Barton decarboxylation reaction, was used as a probe to evaluate a variety
 of halogen and hydrogen atom donating reagents as radical traps. Thus,
 reaction of (+)-(R)-1-fluoro-2,2-diphenylcyclopropanecarbonyl chloride
 with BrCCl3 in the presence of sodium 2-mercaptopyridine N-oxide and
 4-(dimethylamino)pyridine gave 78% (+)-(S)-1-bromo-1-fluoro-2,2-
 diphenylcyclopropane.

L5 ANSWER 71 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1991:121235 CAPLUS
 DN 114:121235
 TI Mass spectra of 1-aryl-2,2-dibromocyclopropanes
 AU Lin, Shaw Tao; Lin, Mei Ling; Lin, Wen Chung
 CS Dep. Appl. Chem., Providence Univ., Taichung, 43309, Taiwan
 SO Organic Mass Spectrometry (1990), 25(12), 667-70
 CODEN: ORMSBG; ISSN: 0030-493X
 DT Journal
 LA English
 AB The electron impact (EI) mass spectra of sixteen 1-aryl-2,2-
 dibromocyclopropanes give an ion at m/x 115, the structure of which is
 proposed to be the indenium ion based on a collision-activated decomposition
 experiment

L5 ANSWER 72 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1991:101306 CAPLUS
 DN 114:101306
 TI Synthesis and biological evaluation of a series of 1,1-dichloro-2,2,3-
 triarylcyclopropanes as pure antiestrogens
 AU Day, Billy W.; Magarian, Robert A.; Jain, Pramod T.; Pento, J. Thomas;
 Mousissian, Gorgin K.; Meyer, Karen L.
 CS Coll. Pharm., Univ. Oklahoma, Oklahoma City, OK, 73190, USA
 SO Journal of Medicinal Chemistry (1991), 34(2), 842-51
 CODEN: JMCMAR; ISSN: 0022-2623
 DT Journal
 LA English
 OS CASREACT 114:101306
 GI



AB A series of 1,1-dichloro-2,2,3-triarylcyclopropanes, including I (R = MeO, R1 = R2 = H; R = PhCH2O, R1 = MeO, R2 = H), was synthesized and evaluated as pure antiestrogens. Addition of 4-methoxy- or 4-(benzyloxy)phenyl Grignard reagents to p-methoxy, p-benzyloxy, or unsubstituted deoxybenzoins, followed by dehydration of the resulting carbinols produced a mixture of E and Z olefins, which reacted with dichlorocarbene to give O-protected I. The E and Z isomers were separated by fractional crystallization and the central or geminal Ph ring was deprotected to provide phenolic I. Alkylation with (N,N-dimethylamino)ethyl chloride yielded basic cyclopropanes. Two chlorodiarylindenenes II (R = Me, PhCH2) were isolated as thermolysis products of I, and one was converted to II (R = H) by hydrogenolysis. All I and II were competitive inhibitors of [3H]-estradiol binding in the immature rat uterine cytosol receptor assay, with relative binding affinities of 0.1-3.6% of estradiol. None of the new compds. were estrogenic in the 3-day immature mouse uterotrophic assay at doses up to 750 µg. In the 3-day immature mouse antiuterotrophic assay, five I (R = MeO, Me2NCH2CH2O, R1 = R2 = H; R = PhCH2O, R1 = R2 = MeO; R = PhCH2O, R1 = MeO, R2 = H; R = Me2NCH2CH2O, R1 = MeO, R2 = H) produced significant decreases in uterine weight at doses up to 750 µg. One compound, I (R = Me2NCH2CH2O, R1 = MeO, R2 = H), elicited a dose-dependent decrease in vivo comparable to Mer 25. These same five compds., as well as the lead compound 1,1-dichloro-2,3-cis-diphenylcyclopropane were active in vitro against the estrogen-dependent MCF-7 human breast tumor cell line in a dose-dependent fashion.

L5 ANSWER 73 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1990:590594 CAPLUS

DN 113:190594

TI Radical intermediates during reduction of halocyclopropanes by lithium aluminum hydride

AU Hatem, J.; Waegell, B.

CS Lab. Stereochim., Fac. Sci. Saint-Jerome, Marseille, 13397, Fr.

SO Tetrahedron (1990), 46(8), 2789-806

CODEN: TETRAB; ISSN: 0040-4020

DT Journal

LA French

OS CASREACT 113:190594

AB Evidence for a radical intermediate in the lithium aluminum hydride reduction of halocyclopropanes is obtained from the comparison of the stereochem. outcome of this reaction with tributyltin hydride, dimethylsodium and sodium methoxy ethoxy aluminum hydride.

L5 ANSWER 74 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

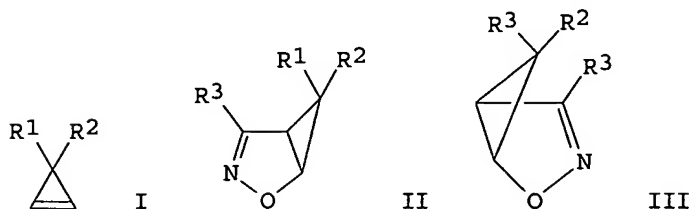
AN 1990:515142 CAPLUS

DN 113:115142

TI Selectivity in reactions of 3,3-disubstituted cyclopropenes with nitrile oxides

AU Bolesov, I. G.; Ignatchenko, A. V.; Bovin, N. V.; Prudchenko, I. A.; Surmina, L. S.; Plemenkov, V. V.; Petrovskii, P. V.; Romanov, I. V.; Mel'nik, I. I.

CS Mosk. Gos. Univ., Moscow, USSR
 SO Zhurnal Organicheskoi Khimii (1990), 26(1), 102-19
 CODEN: ZORKAE; ISSN: 0514-7492
 DT Journal
 LA Russian
 OS CASREACT 113:115142
 GI



AB Cycloaddn. of cyclopropenes I ($R_1 = \text{Me}$, $R_2 = \text{Me}$, Ph , $4\text{-BrC}_6\text{H}_4$, $\text{CH}:\text{CH}_2$, $\text{CH}_2:\text{CMe}$, $\text{Me}_2\text{C}:\text{CH}$, CN ; $R_1 = R_2 = \text{Ph}$) with $\text{R}_3\text{CN}+\text{O}^-$ ($\text{R}_3 = 4\text{-BrC}_6\text{H}_4$, $4\text{-ClC}_6\text{H}_4$, $4\text{-O}_2\text{NC}_6\text{H}_4$, MeO_2C , CN), generated in situ from the appropriate imidoyl chlorides, gave 7-98% stereoisomeric oxazabicyclohexenones II and III. Cyclopropenes I were prepared by addition of CHBr_3 to appropriate dienes and alkenes.

L5 ANSWER 75 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1990:459254 CAPLUS

DN 113:59254

TI Mechanism of grignard reagent formation. The surface nature of the reaction [Erratum to document cited in CA110(15):135283e]

AU Walborsky, H. M.; Rachon, Janusz

CS Dittmer Lab. Chem., Florida State Univ., Tallahassee, FL, 32306, USA

SO Journal of the American Chemical Society (1990), 112(10), 4090

CODEN: JACSAT; ISSN: 0002-7863

DT Journal

LA English

AB An error in the label for structure 4 has been corrected The error was not reflected in the abstract or the index entries.

L5 ANSWER 76 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1990:216412 CAPLUS

DN 112:216412

TI Preparation of diphenylcyclopropanes as antiestrogenic, antitumor and female fertility agents

IN Magarian, Robert A.; Pento, Joseph T.

PA University of Oklahoma, USA

SO U.S., 17 pp. Cont.-in-part of U.S. Ser. No. 363,429, abandoned.

CODEN: USXXAM

DT Patent

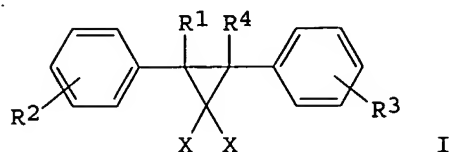
LA English

FAN.CNT 7

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4879315	A	19891107	US 1987-98945	19870921 <--
	US 5015666	A	19910514	US 1989-410938	19890922 <--
	US 5098903	A	19920324	US 1989-432564	19891106 <--
	US 5397802	A	19950314	US 1993-20922	19930222 <--
	US 5324736	A	19940628	US 1993-107426	19930816 <--
	US 5422367	A	19950606	US 1994-201737	19940225 <--
	US 5663207	A	19970902	US 1995-376961	19950120 <--
	US 5658927	A	19970819	US 1995-480212	19950607 <--
	US 5658914	A	19970819	US 1995-480215	19950607 <--
	US 5658951	A	19970819	US 1995-487717	19950607 <--
PRAI	US 1980-128040	A2	19800307		
	US 1980-166255	A2	19800707		
	US 1982-363429	A2	19820330		
	US 1987-98945	A2	19870921		

US 1989-432564	A2	19891106
US 1991-812246	B2	19911219
US 1993-20922	A1	19930222
US 1993-107426	A3	19930816
US 1995-376961	A2	19950120
MARPAT 112:216412		

OS
GI



AB The title compds. [I; R1 = H, alkyl, (un)substituted monocyclic group; R2 = H, OH, OAc, alkoxy, etc.; R3 = H, OH, OAc, alkoxy; R4 = H, alkyl; X = H, halo] were prepared. Thus, cis-stilbene was refluxed 2.5 h with PhHgCl₂Br in benzene to give 86% cis-I (R1-R4 = H; X = Cl) which suppressed growth of 7,12-dimethylbenz[a]anthracene-induced tumors in rats receiving 0.6 mg s.c. 3 times weekly, to ≤5 cm³ (control = 40 cm³) after 6 wk.

L5 ANSWER 77 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1990:215972 CAPLUS

DN 112:215972

TI Mechanism of Grignard reagent formation. Further evidence for the surface nature of the reaction

AU Rachon, Janusz; Walborsky, H. M.

CS Dep. Chem., Florida State Univ., Tallahassee, FL, 32306, USA

SO Tetrahedron Letters (1989), 30(52), 7345-8

CODEN: TELEAY; ISSN: 0040-4039

DT Journal

LA English

OS CASREACT 112:215972

AB The use of Rieke magnesium permits one to obtain reaction with (S)-(+)-1-bromo-1-methyl-2,2-diphenylcyclopropane at -65° to yield a chiral Grignard reagent that is 33-43% optically pure.

L5 ANSWER 78 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1990:98044 CAPLUS

DN 112:98044

TI Behavior of dibromocarbene towards substituted aryl aliphatic olefins

AU Moussa, G. E. M.; Shaban, M. E.; Girgis, D. B.

CS Fac. Sci., Ain Shams Univ., Cairo, Egypt

SO Egyptian Journal of Chemistry (1988), Volume Date 1987, 30(1), 77-83

CODEN: EGJCA3; ISSN: 0367-0422

DT Journal

LA English

OS CASREACT 112:98044

AB Steric factors play a significant role in controlling the rate of dibromocarbene addition to tri- and tetraaryl substituted ethylenes. The transition state was discussed.

L5 ANSWER 79 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1990:20932 CAPLUS

DN 112:20932

TI A synthetic route to bicyclic pyrazolenines via 3-chloropyrazolines and the ring opening of pyrazolenines to diazoalkenes

AU Nakano, Yoshihiko; Hamaguchi, Masashi; Nagai, Toshikazu

CS Coll. Gen. Educ., Osaka Univ., Osaka, 560, Japan

SO Journal of Organic Chemistry (1989), 54(25), 5912-19

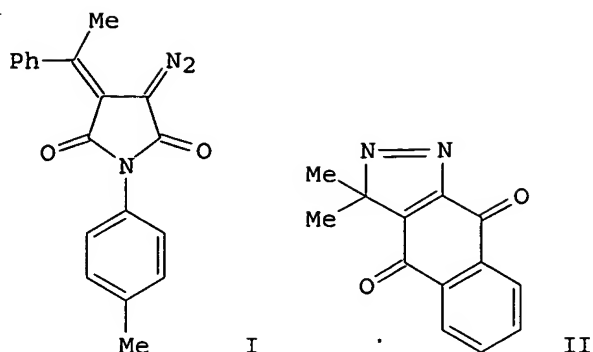
CODEN: JOCEAH; ISSN: 0022-3263

DT Journal

LA English

OS CASREACT 112:20932

GI



AB Treatment of 5,5-disubstituted 3-chloro-1-pyrazolines, derived from the reaction between disubstituted diazomethanes and di-Me chlorofumarate, with triethylamine gives the corresponding 3,3-disubstituted 3H-pyrazoles in good yield. This method was applied to the synthesis of bicyclic pyrazolenines. The system fused to a 5-membered imide ring did not afford 3H-pyrazoles but diazoalkenes, e.g. I, formed by thermal ring opening of the 3H-pyrazoles. In contrast, in a 6-membered ring fused system, the 3H-pyrazoles, e.g. II, were isolated. The isolation of diazoalkenes from the 5-membered ring fused system is explained by destabilization of the 3H-pyrazoles due to strain arising from fusion of 2 five-membered rings.

L5 ANSWER 80 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1989:231388 CAPLUS

DN 110:231388

TI [2 + 4] Photocyclization between quinones and allenes via photoinduced electron transfer

AU Maruyama, Kazuhiro; Imahori, Hiroshi

CS Fac. Sci., Kyoto Univ., Kyoto, 606, Japan

SO Journal of Organic Chemistry (1989), 54(11), 2692-702

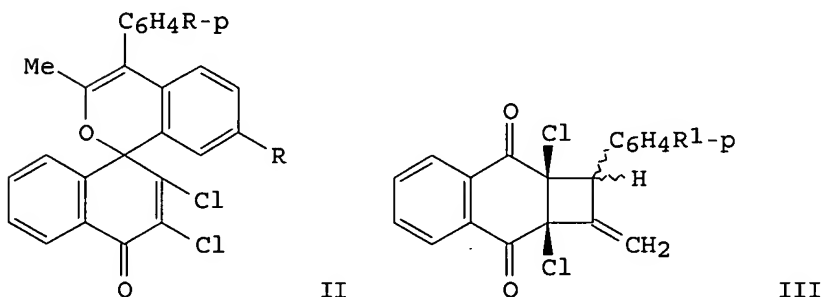
CODEN: JOCEAH; ISSN: 0022-3263

DT Journal

LA English

OS CASREACT 110:231388

GI

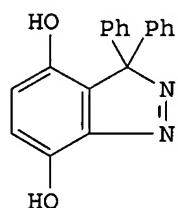


AB Photochem. reactions of halo-1,4-naphthoquinones with 1,1-diphenylallenes afforded spiro pyran adducts derived from regioselective [2 + 4] cycloaddn. between the CO group of the quinone and the allene. E.g., Ph₂C:C:CH₂ and 2,3-dichloro-1,4-naphthoquinone (I) gave spiro(benzopyrannaphthalenone) II (R = H). The structure of II (R = Me) was determined by x-ray crystallog. In the photoreactions of I with p-R₁C₆H₄CH:C:CH₂ (R₁ = H, Me), [2 + 2] cycloadducts III were obtained in addition to spiro pyran derivs. On the basis of the free energy changes together with substituent effects, solvent effects, and CIDNP data, an electron-transfer mechanism is plausible. Radical ion pair formation of

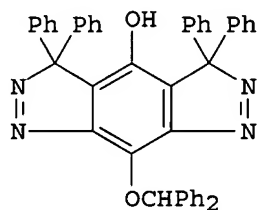
an excited triplet quinone and an allene is followed by conversion to a biradical. Subsequent bond formation between the ketyl radical in the quinone moiety and the ortho position of a Ph substituent on the allene skeleton leads to the spiro pyran adduct after a subsequent 1,5-H shift.

L5 ANSWER 81 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1989:192011 CAPLUS
 DN 110:192011
 TI Applications of phase-transfer catalysis. Part 41. Cocatalytic effects of pinacol in phase-transfer catalysis
 AU Dehmlow, Eckehard V.; Rath, Hans Christian; Soufi, Johanna
 CS Fak. Chem., Univ. Bielefeld, Bielefeld, D-4800/1, Fed. Rep. Ger.
 SO Journal of Chemical Research, Synopses (1988), (10), 334-5
 CODEN: JRPSDC; ISSN: 0308-2342
 DT Journal
 LA English
 OS CASREACT 110:192011
 AB Yields of dihalocyclopropanes made by phase-transfer catalysis (PTC) from bromoform or chloroform are higher if a small concentration of pinacol is present as cocatalyst. It is shown that pinacol accelerates PTC deprotonation of substrates up to pKa 27; beyond that a rate decrease is found.

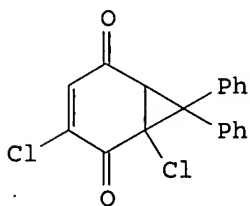
L5 ANSWER 82 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1989:154210 CAPLUS
 DN 110:154210
 TI Addition of diphenyldiazomethane to unsubstituted and chloro-substituted 1,4-benzoquinones. Effects of chloro substituents on the addition modes
 AU Oshima, Takumi; Nagai, Toshikazu
 CS Coll. Gen. Educ., Osaka Univ., Toyonaka, 560, Japan
 SO Bulletin of the Chemical Society of Japan (1988), 61(7), 2507-12
 CODEN: BCSJA8; ISSN: 0009-2673
 DT Journal
 LA English
 OS CASREACT 110:154210
 GI



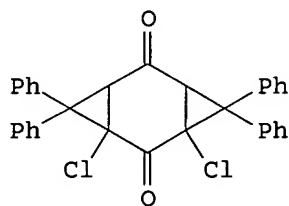
I



II



III



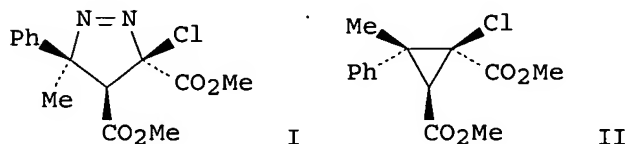
IV

AB Unsubstituted 1,4-benzoquinone reacted with diphenyldiazomethane (DDM) at the C:C double bonds to give dihydroxy-3H-indazole (I) and its benzhydryl ether together with benzodipyrzole derivative (II). Similarly, reactions of 2-chloro- and 2,3-dichloro-1,4-benzoquinones with DDM yielded the corresponding dihydroxy-3H-indazoles and their benzhydryl ethers along with 5-13% benzophenone. Reaction of 2,6-dichloro-1,4-benzoquinone with DDM gave bicyclic III and tricyclic diones (IV) together with benzophenone di-Me acetal in the presence of added methanol. In the same conditions, 2,3,5-trichloro-1,4-benzoquinone provided its bicyclic dione and benzophenone di-Me acetal. The C = O addition increased with increasing chlorine substituents.

L5 ANSWER 83 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1989:135283 CAPLUS
 DN 110:135283
 TI Mechanism of Grignard reagent formation. The surface nature of the reaction
 AU Walborsky, H. M.; Rachon, Janusz
 CS Dittmer Lab. Chem., Florida State Univ., Tallahassee, FL, 32306, USA
 SO Journal of the American Chemical Society (1989), 111(5), 1896-7
 CODEN: JACSAT; ISSN: 0002-7863
 DT Journal
 LA English
 AB Further evidence for the surface nature of Grignard reagent formation is provided in the reaction of chiral 1-bromo-1-methyl-2,2-diphenylcyclopropane, 4-methylcyclohexylidene-1-bromoethane and Me 2-bromodibenzobicyclo[2.2.2]octane-2-carboxylate with magnesium in methanol solvent.

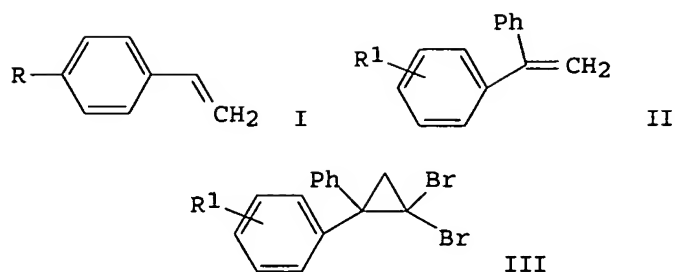
L5 ANSWER 84 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1989:114749 CAPLUS
 DN 110:114749
 TI Stability and stereochemistry in the decomposition of pentasubstituted 1-pyrazolines controlled by interactions between bulky vicinal substituents
 AU Nakano, Yoshihiko; Hamaguchi, Masashi; Nagai, Toshikazu
 CS Coll. Gen. Educ., Osaka Univ., Osaka, 560, Japan
 SO Journal of Organic Chemistry (1989), 54(5), 1135-44
 CODEN: JOCEAH; ISSN: 0022-3263
 DT Journal
 LA English
 OS CASREACT 110:114749
 GI



AB 1,2-Diacyl-1-chloroethylenes [e.g., (Z)- and (E)-MeO₂CCCl:CHCO₂Me] reacted with disubstituted diazomethanes (e.g., Me₂C:N₂, MeCPh:N₂, Ph₂C:N₂) to give pyrazolines and cyclopropanes (e.g., I and II, resp.). The thermal decomposition of the isolated pyrazolines was carried out. The thermal stability of the pyrazolines increased with the variation of the substituents at C5 in the order biphenylylene < Ph, Ph < Ph, Me < Me, Me, while pyrazolines bearing bulky vicinal substituents at C3, C4, and C5 in the cis configuration were substantially more stable than other isomers. This abnormal stability is explained by the reasonable expectation that bulky C4 substituents partly inhibit conformations of the conjugated substituents at C3 or C5 favorable for the decomposition, which increases the activation energy. Although most of the thermolyses of the pyrazolines to cyclopropanes gave products with the same configuration as the starting materials, some pyrazolines bearing bulky vicinal cis groups gave mixts. of stereoisomeric cyclopropanes. The thermolysis mechanism is discussed.

L5 ANSWER 85 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1989:74532 CAPLUS
 DN 110:74532
 TI Studies on phase transfer catalysis. V. Kinetic study of the cycloaddition of dibromocarbene with substituted styrenes and α-arylstyrenes by carbon-14 labeling method
 AU Lin, Shouyuan; Wu, Yuling; Wang, Zhizhong; Sheng, Huaiyu
 CS Shanghai Inst. Org. Chem., Acad. Sin., Shanghai, Peop. Rep. China
 SO Huaxue Xuebao (1988), 46(5), 419-26
 CODEN: HHHPA4; ISSN: 0567-7351
 DT Journal
 LA Chinese
 OS CASREACT 110:74532

GI



AB The relative rate consts. k_{rel} of the PTC reaction of p-substituted styrenes I ($R = H, Me, Cl, MeO, NO_2$) with dibromocarbene were measured by radiocounting method and the k_{rel} values were analyzed by linear correlation method. The ρ value of the PTC reaction of α -arylstyrenes II ($R_1 = 3-Me, 4-Me, H, 3-Cl, 4-MeO, 3-CF_3$) with dibromocarbene system was smaller than the one obtained from substituted styrene reaction. It was suggested that the aryl group of α -arylstyrene might disperse the pos. charge from α carbon atom. A variety of the crown compds. were used as PTC catalysts for the reaction of 1,1-diphenylethylene and dibromocarbene and it was found that N,N'-disubstituted azacrown possessed the highest catalytic activity for this reaction. Six 1- ^{14}C -1, 1-dibromo-2-aryl-2-phenyl-cyclopropanes were prepared and identified by comparison with the unlabeled authentic samples III which were characterized by elemental anal., NMR, MS, and TLC anal.

L5 ANSWER 86 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1988:510017 CAPLUS

DN 109:110017

TI Preparation of (phenylthio)cyclopropane derivatives as pyrethroid-type insecticides

IN Suzuki, Hitomi

PA Daikin Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

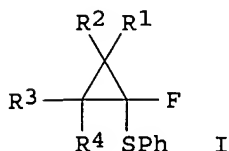
DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63101358	A2	19880506	JP 1986-248112	19861017 <--
PRAI	JP 1986-248112		19861017		
OS	CASREACT 109:110017; MARPAT 109:110017				

GI



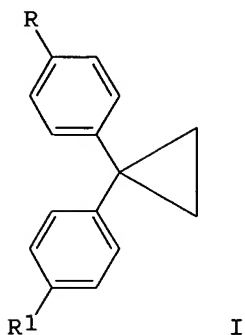
AB Title derivs. I ($R_1 - R_4 = H, alkyl, alkoxy, aryl; R_1R_2 = 2-C_6H_4CH_2CH_2CH_2$), useful as pyrethroid-type insecticides (no data), are prepared from PhSCHFCl (II) and $R_1R_2C:CR_3R_4$. A mixture of $Me_2C:CMe_2$, $PhCH_2N+Et_3 Cl^-$, and NaOH in $CH_2Cl_2-H_2O$ was treated with II at room temperature for 4-5 h to give 84% I ($R_1 - R_4 = Me$).

L5 ANSWER 87 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1988:405925 CAPLUS

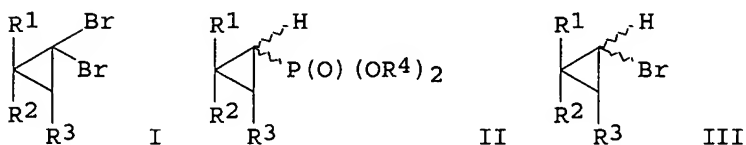
DN 109:5925

TI Arylcyclopropane photochemistry. Effects of electron-donating and electron-withdrawing aromatic substituents on the photochemical rearrangements of 1,1-diarylcyclopropanes
 AU Hixson, Stephen S.; Franke, Lothar A.
 CS Chem. Dep., Univ. Massachusetts, Amherst, MA, 01003, USA
 SO Journal of Organic Chemistry (1988), 53(12), 2706-11
 CODEN: JOCEAH; ISSN: 0022-3263
 DT Journal
 LA English
 OS CASREACT 109:5925
 GI



AB Irradiation of 1,1-diarylcyclopropanes I (R, R1 = CF3, CN, H, OMe, Me) afforded 1,1-diarylpropenes and 1-aryllindans. The rate consts. of these (singlet state) reactions were determined from the reactant fluorescence lifetimes and product quantum yields. The rate-determining step in the rearrangements is charge-transfer-enhanced cyclopropane ring opening.

L5 ANSWER 88 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1987:459101 CAPLUS
 DN 107:59101
 TI Versatile synthesis of dialkyl cyclopropylphosphonates via reductive phosphonation
 AU Hirao, Toshikazu; Hagihara, Masahiko; Agawa, Toshio
 CS Fac. Eng., Osaka Univ., Suita, 565, Japan
 SO Bulletin of the Chemical Society of Japan (1985), 58(11), 3104-7
 CODEN: BCSJA8; ISSN: 0009-2673
 DT Journal
 LA English
 OS CASREACT 107:59101
 GI

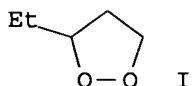


AB Reductive phosphonation of gem-dibromocyclopropane I [R1 = n-C6H13, H, Ph, SiMe3, CN; R2 = H, Me; R3 = H; R2R3 = (CH2)4, (CH2)6] with P(OR4)3 (R4 = Et, Me2CH) in the presence of Et3N and water gave cis- and trans-cyclopropylphosphonates II, along with the corresponding monobromocyclopropanes III.

L5 ANSWER 89 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1987:422806 CAPLUS
 DN 107:22806
 TI Further evidence of SET (single electron transfer) mechanism during the lithium aluminum hydride reduction of optically active 1-bromo-1-methyl-2,2-diphenylcyclopropane

AU Hatem, J.; Meslem, J. M.; Waegell, B.
 CS Lab. Stereochim., Univ. d'Aix-Marseille, Marseille, 13397, Fr.
 SO Tetrahedron Letters (1986), 27(32), 3723-4
 CODEN: TELEAY; ISSN: 0040-4039
 DT Journal
 LA English
 AB Bu₃SnH and LiAlH₄ reduced the (-)-(R)-isomer of the title cyclopropane with racemization. On the other hand, similar reduction using NaAlH(OMe)(OEt) gave retention of configuration. Thus, reduction of the cyclopropyl halide by LiAlH₄ proceeded via a radical intermediate, and most likely involved a SET mechanism.

L5 ANSWER 90 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1986:224846 CAPLUS
 DN 104:224846
 TI Oxymetalation. 20. Conversion of cyclopropanes into 1,2-dioxolanes via tert-butyl peroxymercuration, bromodemercuration, and silver salt induced cyclization
 AU Bloodworth, A. J.; Chan, Kam Hung; Cooksey, Christopher J.
 CS Christopher Ingold Lab., Univ. Coll. London, London, WC1H 0AJ, UK
 SO Journal of Organic Chemistry (1986), 51(11), 2110-15
 CODEN: JOCEAH; ISSN: 0022-3263
 DT Journal
 LA English
 OS CASREACT 104:224846
 GI

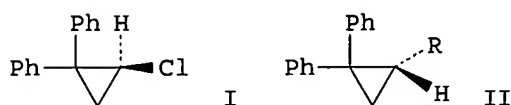


AB The tert-Bu peroxymercuration of cyclopropane and ethyl-, phenyl-, 1,1-dimethyl-, 1-methyl-1-phenyl-, and 1,1-diphenylcyclopropane were carried out by using mercury(II) acetate, a 1-fold excess of tert-Bu hydroperoxide, and 20 mol % of perchloric acid. After anion exchange with aqueous KBr, the derived γ -bromomercuroalkyl tert-Bu peroxides were isolated (10-51%) by silica chromatog. These were converted into the corresponding γ -bromoalkyl tert-Bu peroxides (84-100%) by reaction with Br and NaBr in MeOH. The bromides were converted into the corresponding 1,2-dioxolanes, e.g. I (>80%), by treatment with silver trifluoroacetate. However, the reaction of 3-bromo-1,1-diphenylpropyl tert-Bu peroxide with silver trifluoroacetate afforded a phenoxy acetal derived from β -tert-butoxyethyl Ph ketone, which was identified by conversion into phenol plus the corresponding (2,4-dinitrophenyl)hydrazone upon treatment with acidic (2,4-dinitrophenyl)hydrazine.

L5 ANSWER 91 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1986:220744 CAPLUS
 DN 104:220744
 TI Quantitative structure-activity relationships of insecticidal diphenyldichlorocyclopropanes
 AU Nishimura, Keiichiro; Hirayama, Keiko; Kobayashi, Takamitsu; Fujita, Toshio; Holan, George
 CS Dep. Agric. Chem., Kyoto Univ., Kyoto, 606, Japan
 SO Pesticide Biochemistry and Physiology (1986), 25(2), 153-62
 CODEN: PCBPBS; ISSN: 0048-3575
 DT Journal
 LA English
 AB Neurophysiol. activity of a series of aromatic-substituted 1,1-diphenyl-2,2-dichlorocyclopropanes (DCC analogs) in the induction of repetitive discharges in excised central nerve cords of the American cockroach was determined by an extracellular recording technique. Quant. anal. using physicochem. parameters showed that variations in the activity were parabolically correlated with the van der Waals volume of aromatic substituents. Insecticidal activity of these compds. in the American cockroach under conditions where oxidative metabolic activity was

inhibited by piperonyl butoxide was also determined. This was related to the repetitive nerve discharge activity, when transport factors were separated by using a hydrophobicity parameter. The analyses showed that the aromatic substituent effects on the neurophysiol. activity as well as the relationship between insecticidal and neurophysiol. activities are very close to those observed previously for DDT analogs including DDT, DDD, and prolan derivs.

L5 ANSWER 92 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1986:109057 CAPLUS
 DN 104:109057
 TI Carbenoids. Metal assisted ionization
 AU Walborsky, H. M.; Duraisamy, M.
 CS Dep. Chem., Florida State Univ., Tallahassee, FL, 32306, USA
 SO Tetrahedron Letters (1985), 26(23), 2743-6
 CODEN: TELEAY; ISSN: 0040-4039
 DT Journal
 LA English
 OS CASREACT 104:109057
 GI



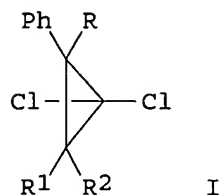
AB Treatment of diphenylcyclopropane I with BuLi yielded cyclopropanes II (R = H, Bu, CPh₂C.tplbond.CH), with overall inverted configuration. A metal-assisted ionization mechanism was proposed.

L5 ANSWER 93 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1986:59720 CAPLUS
 DN 104:59720
 TI Conformations of cyclopropane derivatives. Part II. The structure and absolute configuration of (R)-(+)-1-fluoro-2,2-diphenylcyclopropanecarboxylic acid
 AU Ries, Wolfgang H.; Bernal, Ivan
 CS Chem. Dep., Univ. Houston, Houston, TX, 77004, USA
 SO Journal of Molecular Structure (1985), 131(3-4), 371-81
 CODEN: JMOSB4; ISSN: 0022-2860
 DT Journal
 LA English
 AB The title compound is orthorhombic, space group P2₁2₁2₁, with a 6.172(9), b 7.890(2), and c 27.091(7) Å; d.(calculated) = 1.290 for Z = 4. Final R = 0.0448 (Rw = 0.0329). Atomic coordinates are given. The plane of the carboxylic group is nearly orthogonal to the plane of the cyclopropane ring (dihedral angle 99.05°) while the dihedral angles between the 2 Ph rings and the cyclopropane ring are 117.77 and 63.18° resp. The carboxylic group is not in the bisecting conformation (with respect to the angle C4-C2-C3) as shown by the values of the torsional angles O2-C1-C2-C3 (-19.68°) and O2-C1-C2-C4 (50.35°). This is a natural consequence of the steric hindrance between the cis-Ph ring and the -COOH substituent adjacent to it. One of the bonds within the cyclopropane ring is longer than the other two (1.563(9), 1.496(9), 1.494(8) Å), the longer one being associated with the disubstituted carbons. The 2 C-O bonds are 1.290(9) and 1.195(7) Å, which are within the normally expected values. The rest of the bond lengths and angles are also normal. The mols. are H bonded into infinite chains running along the length of the α (shortest) axis of the lattice.

L5 ANSWER 94 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1985:549410 CAPLUS
 DN 103:149410
 TI Electroorganic reactions on organic electrodes. VIII. Comparative study of monomeric and polymeric redox mediators in indirect electrochemical reduction

AU Takiguchi, Tsuyoshi; Nonaka, Tsutomu
 CS Dep. Electron. Chem., Tokyo Inst. Technol., Yokohama, 227, Japan
 SO Nippon Kagaku Kaishi (1985), (6), 1147-53
 CODEN: NKAJB8; ISSN: 0369-4577
 DT Journal
 LA Japanese
 AB Monomeric and polymeric 1-alkylpyridinium compds. as redox mediators in the indirect electrochem. reduction of dihalo compds. were studied comparatively in aprotic solvents. A 4-ethoxycarbonyl-1-methylpyridinium cation (I) was found to give 2 reversible cyclic voltammetric waves which may demonstrate the formation of corresponding neutral radical of I in MeCN and the anion of I at a more neg. potential. It was confirmed by both cyclic voltammetry and preparative electrolysis that meso-1,2-dibromo-1,2-diphenylethane (II) and 1,1-dibromo-2,2-diphenylcyclopropane (III) could be reduced indirectly with electrogenerated the radical of I and the anion of I, resp. A Pt electrode which was chemical modified with 4-oxycarbonyl-1-methylpyridinium groups did not give any clear redox waves. At the next stage, a polymeric mediator having a mol. structure equivalent to monomeric I was examined in a similar way. Poly(4-vinyloxy-1-methylpyridinium cation) (IV) seemed to undergo reductive decomposition in DMF, while a IV with an I- counter ion coated Pt electrode mediated the reduction of II at the 1st wave potential in MeCN. The current at the 2nd wave was so small that the coated-electrode could not be used for the preparative electrolysis of III. Indirect electrochem. reactions were greatly affected by the status of mediators used.

L5 ANSWER 95 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1985:220237 CAPLUS
 DN 102:220237
 TI Inter- versus intramolecular Friedel-Crafts reaction of phenyl-substituted dichlorocyclopropanes
 AU Anke, Lutz; Weyerstahl, Peter
 CS Inst. Org. Chem., Tech. Univ. Berlin, Berlin, D-1000/12, Fed. Rep. Ger.
 SO Chemische Berichte (1985), 118(2), 613-19
 CODEN: CHBEAM; ISSN: 0009-2940
 DT Journal
 LA German
 OS CASREACT 102:220237
 GI

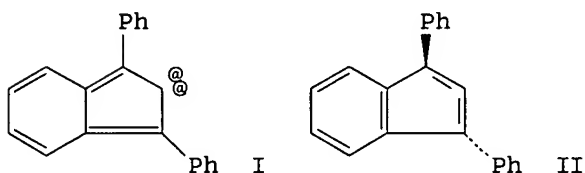


AB Friedel-Crafts reactions of Ph substituted dichlorocyclopropanes [I; R = H, Me, Ph; R1 = Me, H; R2 = Me, Ph, H; (R1R2) = (CH2)5, R = Me, Ph] yield indenenes by the known intermol. reaction with benzene and 2-chloroindenenes by an intramol. pathway even in the presence of benzene. 2-Chloroindenenes are also formed in CS2 without benzene. The results are explained by steric factors of the chloroallyl cation reactive intermediates.

L5 ANSWER 96 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1985:5726 CAPLUS
 DN 102:5726
 TI Carbon tetrachloride-dimethyl sulfone-potassium hydroxide-tert-butyl alcohol: a convenient new reagent for gem-dichloromethylenation of alkenes
 AU Poon, Chi Duen; Yuen, Po Wai; Man, Tim On; Li, Chun Sing; Chan, Tze Lock
 CS Chem. Dep., Chin. Univ. Hong Kong, Shatin, Hong Kong
 SO Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1984), (7), 1561-3
 CODEN: JCPRB4; ISSN: 0300-922X

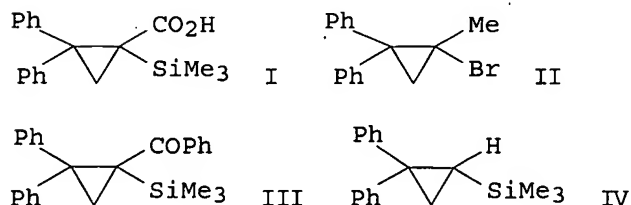
DT Journal
 LA English
 AB Treatment of CCl₄ with Me₂SO₂-KOH-Me₃COH gave :CCl₂ which added stereospecifically to aliphatic, cyclic, and aromatic alkenes to give gem-dichlorocyclopropanes in 45-93% yield, with retention of configuration about the C-C double bond. E.g., reaction of cis-PrCH:CHMe with CCl₄-Me₂SO₂-KOH-Me₃COH for 1.5 h gave 51% cis-1,1-dichloro-2-methyl-3-propylcyclopropane. The relative reactivities of alkenes towards the CCl₄-derived :CCl₂ parallel the nucleophilicities of the alkenes and indicate that free :CCl₂ is probably involved.

L5 ANSWER 97 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1984:529920 CAPLUS
 DN 101:129920
 TI Carbanion photochemistry. 11. 1,3-Diphenylisoindenylidene
 AU Tolbert, Laren M.; Siddiqui, Shahabuddin
 CS Dep. Chem., Univ. Kentucky, Lexington, KY, 40506, USA
 SO Journal of the American Chemical Society (1984), 106(19), 5538-43
 CODEN: JACSAT; ISSN: 0002-7863
 DT Journal
 LA English
 OS CASREACT 101:129920
 GI



AB Irradiation of 2-chloro- or 2-bromo-1,3-diphenylindenyl anion causes dehalogenation to yield a hypovalent intermediate best described as 1,3-diphenylisoindenylidene (I) or -1,2-dehydroindene (II). This intermediate undergoes facile C-H insertion, addition to electron-rich olefins, and halide interchange.

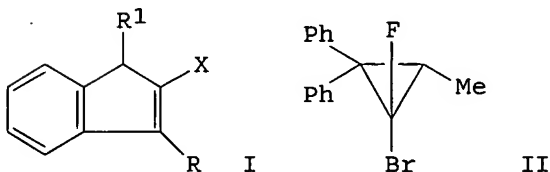
L5 ANSWER 98 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1984:51691 CAPLUS
 DN 100:51691
 TI Silanes in organic synthesis. 21. Configurational stability of the 2,2-diphenyl-1-(trimethylsilyl)cyclopropyl carbanion and free radical. Absolute stereochemical assignments to select silylcyclopropanes
 AU Paquette, Leo A.; Uchida, Takane; Gallucci, Judith C.
 CS Evans Chem. Lab., Ohio State Univ., Columbus, OH, 43210, USA
 SO Journal of the American Chemical Society (1984), 106(2), 335-40
 CODEN: JACSAT; ISSN: 0002-7863
 DT Journal
 LA English
 OS CASREACT 100:51691
 GI



AB 2,2-Diphenylcyclopropanecarboxylic acid was silylated at the 1-position and this product was resolved with 1-cinchonidine. The resulting

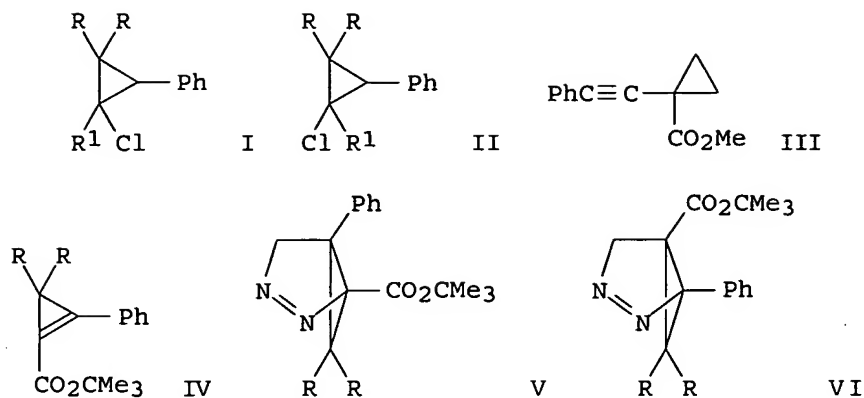
optically active acid [(-)-I] was transformed into (-)-2,2-diphenyl-1-methyl-1-(trimethylsilyl)cyclopropane, whose absolute configuration was shown to be R by metalation and silylation of (-)-(R)-II. The latter reaction proceeds with retention of configuration. In this way, the levorotatory form of (-)-I was established to be R. Whereas the Hunsdiecker degradation of (-)-(R)-I produced only racemic bromide, application of the Haller-Bauer process to (+)-(R)-III led to (-)-(R)-IV. This carbanion-mediated reaction proceeded with complete retention of stereochem. The failure of the α -silyl cyclopropyl free radical to maintain configuration and the nonracemizability of its carbanion counterpart are discussed in the light of Si's capacity for stabilizing neighboring reactive centers.

L5 ANSWER 99 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1984:51201 CAPLUS
 DN 100:51201
 TI Study of thermal transformations of gem-dihalodiphenylcyclopropanes
 AU Kostikov, R. R.; Varakin, G. S.; Ogloblin, K. A.
 CS Leningr. Univ., Leningrad, USSR
 SO Zhurnal Organicheskoi Khimii (1983), 19(8), 1625-32
 CODEN: ZORKAE; ISSN: 0514-7492
 DT Journal
 LA Russian
 OS CASREACT 100:51201
 GI



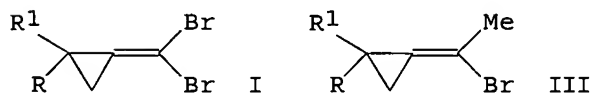
AB Dihalocyclopropanation of E-PhCR:CHR1 (R = H, Me, R1 = Ph; R = Ph, R1 = H, Me, Et, Pr, CHMe2) with CHX3 (X = Cl, Br) and 50% aqueous NaOH containing PhCH2NEt3+ Cl- at 40-45° gave 14 title compds., thermal rearrangement of which gave mixts. of the corresponding halophenylindenes I, PhCR:CXCHR1X, Ph2C:CXCH:CR2R3 (R2 = R3 = H, Me; R2 = Me, Et, R3 = H) and/or CH2:CPhCX:CHPh. The I yield increased in the presence of acidic catalysts, and that of dienes in the presence of bases. Ph2C:CHMe and CHFBr2 gave cyclopropane II, which yielded 82% Ph2C:CFCH:CH2 on heating.

L5 ANSWER 100 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1983:612236 CAPLUS
 DN 99:212236
 TI Synthesis and addition reactions of 2-phenyl-1-cyclopropene-1-carboxylates
 AU Norden, Wolfgang; Sander, Volker; Weyerstahl, Peter
 CS Inst. Org. Chem., Tech. Univ. Berlin, Berlin, D-1000, Fed. Rep. Ger.
 SO Chemische Berichte (1983), 116(9), 3097-111
 CODEN: CHBEAM; ISSN: 0009-2940
 DT Journal
 LA German
 OS CASREACT 99:212236
 GI



AB RRC:CHPh [R = Me, Ph; RR = (CH₂)_n (n = 3-6)] were converted into cyclopropanecarboxylic acids I and II (R₁ = CO₂H) via I (R₁ = Cl). Spiropentane I [RR = (CH₂)₂, R₁ = Cl] gave ethynylcyclopropane III via anionic ring cleavage with BuLi. I and II (R = CO₂CMe₃) gave cyclopropenes IV, but the trans isomers I reacted much faster than cis isomers II. C-3 unsubstituted chlorocyclopropanecarboxylates do not give stable cyclopropene esters even with Li dialkylamides. Addition reactions of CH₂N₂, thiophenolate, malonate, and CH₂(CN)₂ with IV were studied. Thus, e.g., IV and CH₂N₂ gave bicyclic pyrazolines V and VI.

L5 ANSWER 101 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1983:612173 CAPLUS
 DN 99:212173
 TI Reaction of 2,2-disubstituted 1-(dibromomethylene)cyclopropanes with methyllithium
 AU Kostikov, R. R.; Molchanov, A. P.; Nagi, Sh. M.
 CS Leningr. Univ., Leningrad, USSR
 SO Zhurnal Organicheskoi Khimii (1983), 19(7), 1437-44
 CODEN: ZORKAE; ISSN: 0514-7492
 DT Journal
 LA Russian
 OS CASREACT 99:212173
 GI

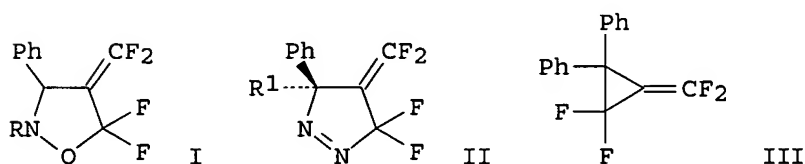


AB I [R, R₁ = cyclopropyl (Z), Z; Ph, Me; 4-MeOC₆H₄, Me; 4-MeC₆H₄, Me; Ph, Z; 4-MeOC₆H₄, Z; 4-ClC₆H₄, Z; Ph, Ph] were prepared and treated with MeLi to give RR₁C:CHC.tplbond.CH (II) and/or III. Electron-donor groups on the ring of I favored formation of II, while acceptor groups favored III formation.

L5 ANSWER 102 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1983:495690 CAPLUS
 DN 99:95690
 TI Electroorganic reactions on organic electrodes. 4. Stereochemical studies of the electrolytic reactions of organic compounds. XXIII. Electrochemical asymmetric reduction of prochiral carbonyl compounds, oximes, and a gem-dihalide on a poly-L-valine-coated graphite electrode
 AU Abe, Shigemitsu; Fuchigami, Toshio; Nonaka, Tsutomu
 CS Grad. Sch. Nagatsuta, Tokyo Inst. Technol., Yokohama, 227, Japan
 SO Chemistry Letters (1983), (7), 1033-6
 CODEN: CMLTAG; ISSN: 0366-7022
 DT Journal
 LA English
 AB The electrochem. asym. reduction of prochiral carbonyl compds., oximes, and a gem-dihalide was examined by using a poly-L-valine-coated graphite

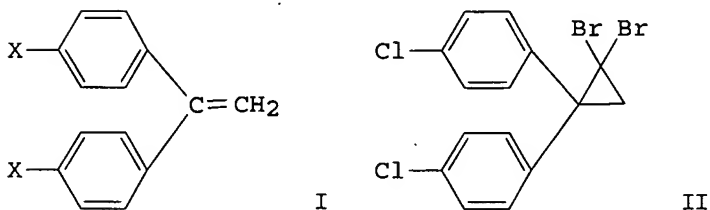
electrode. The highest asym. yield (16.6%) was obtained in the reduction of 1,1-dibromo-2,2-diphenylcyclopropane [17343-74-7] to the corresponding monobromocyclopropane.

L5 ANSWER 103 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1983:215511 CAPLUS
 DN 98:215511
 TI Polyhaloallenes and -acetylenes. Part 16. Further 1,3-dipolar cycloadditions to perfluoropropadiene
 AU Blackwell, Gordon B.; Haszeldine, Robert N.; Taylor, David R.
 CS Dep. Chem., Univ. Manchester Inst. Sci. Technol., Manchester, M60 1QD, UK
 SO Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1983), (1), 1-5
 CODEN: JCPRB4; ISSN: 0300-922X
 DT Journal
 LA English
 OS CASREACT 98:215511
 GI



AB Treatment of nitrones $\text{PhCH:N}^+(\text{R})\text{O}^-$ ($\text{R} = \text{Me, Et, PhCH}_2$) with $(\text{F}_2\text{C:})_2\text{C}$ at 20° for 5 h gave isoxazolidines I (R as before) in 71, 99, and 79% yield, resp. $(\text{F}_2\text{C:})_2$ also reacted with PhCR_1N_2 ($\text{R}_1 = \text{H, Ph}$) at 20° in C_6H_6 to give pyrazolines II ($\text{R}_1 = \text{H, Ph}$) in 78 and 20% yield, resp. On heating, II ($\text{R}_1 = \text{Ph}$) eliminated N_2 to give the cyclopropane III in 15% yield. The regiospecificity of the dipolar addition reactions of $(\text{F}_2\text{C:})_2\text{C}$ are discussed in relation to frontier orbital theory.

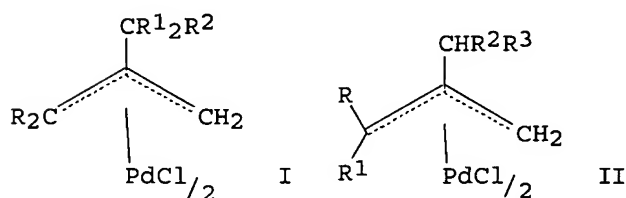
L5 ANSWER 104 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1983:34001 CAPLUS
 DN 98:34001
 TI Applications of phase transfer catalysis. 23. Note on bromiodocarbene and on pertinent halogen exchange processes
 AU Dehmlow, Eckehard V.; Broda, Witold
 CS Fak. Chem., Univ. Bielefeld, Bielefeld, D-4800/1, Fed. Rep. Ger.
 SO Chemische Berichte (1982), 115(12), 3894-7
 CODEN: CHBEAM; ISSN: 0009-2940
 DT Journal
 LA German
 GI



AB Halogen exchange occurred in either HCCl_2 or HCCl_3 in CH_2Cl_2 and 50% aqueous NaOH and $\text{PhCH}_2\text{N}^+\text{Et}_3\text{Cl}^-$. I ($\text{R} = \text{H, Cl}$) was treated with either HCCl_2 or HCCl_3 to give cyclopropane derivs. (e.g. II) by trapping carbene intermediates.

L5 ANSWER 105 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1982:571159 CAPLUS
 DN 97:171159
 TI Stereochemistry of electroreduction of bromocyclopropanes. Part II. Stereoselectivity of electroreduction of optically active monobromocyclopropanes. Effect of electrolysis conditions
 AU Hazard, Roland; Jaouannet, Serge; Raoult, Eugene; Tallec, Andre
 CS Lab. Electrochim., Univ. Rennes, Rennes, 35042, Fr.
 SO Nouveau Journal de Chimie (1982), 6(6), 325-33
 CODEN: NJCHD4; ISSN: 0398-9836
 DT Journal
 LA French
 OS CASREACT 97:171159
 AB The 2-electron reduction of S (+) 1-bromo-1-carboxy-2,2-diphenylcyclopropane [83198-34-9] and its parent ester was studied. The ease of cleavage of the C-Br bond depends on the nature of the supporting electrolyte cation which also plays a determining role in the stereoselectivity of the reduction when performed at a Hg cathode. In aqueous acetate buffer, in the presence of NH₄⁺, a preferential retention of configuration was observed: the more neg. the working potential, the higher the retention (a ratio of 70% was observed in the case of the ester). By contrast, the presence of R₄N⁺ gives rise to a major inversion, the ratio of which does not depend on the working potential but increases with the bulkiness of the organic cation (the ratio of inversion is 60% in the case of the ester with Bu₄N⁺). In ammoniacal buffer, similar results were also observed. Nevertheless, the overall yield of inversion depends, in the presence of R₄N⁺, on the applied potential. In all the cases, the interpretation of results takes into account the fact that the proton-donating ability at the electrode depends on the nature of the interface.

L5 ANSWER 106 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1982:545003 CAPLUS
 DN 97:145003
 TI Chloropalladation of phenyl-substituted methylenecyclopropanes
 AU Dallas, Bruce K.; Hughes, Russell P.; Schumann, Karen
 CS Dep. Chem., Dartmouth Coll., Hanover, NH, 03755, USA
 SO Journal of the American Chemical Society (1982), 104(20), 5380-3
 CODEN: JACSAT; ISSN: 0002-7863
 DT Journal
 LA English
 GI

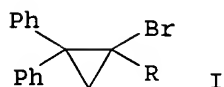


AB Chloropalladation of methylenecyclopropanes with Ph groups on the cyclopropane ring involves 1,3-addition of Pd-Cl to the organic mol., with cleavage of the 2,3-σ bond of the ring. Thus, 2,2-diphenylmethylenecyclopropane in CDCl₃ or C₆D₆ gave 1:1 I (R = Ph, R₁ = H; R = H, R₁ = Ph; R₂ = Cl) under kinetic control; the latter isomerizes to the former. In MeOH, solvolysis of I (R = H, R₁ = Ph, R₂ = Cl) gave I (R₂ = OMe) more rapidly than isomerization to give I (R = Ph, R₁ = H, R₂ = Cl). The mechanisms of isomerization and solvolysis are discussed; the kinetics of the isomerization were determined. 2,2-Diphenylmethylenecyclopropane-3,3-d reacted similarly. 2-Phenylmethylenecyclopropane is chloropalladated to give II [R = R₁ = H, R₂ = Ph (III); R = Ph, R₁ = R₂ = H; R = R₂ = H, R₁ = Ph; R₃ = Cl]; only III isomerizes to an equilibrium mixture of the other isomers in refluxing MeCN.

In refluxing MeOH, III solvolized to II (R3 = OMe) without isomerization. The mechanism of chloropalladation of phenyl-substituted methylenecyclopropanes is identical with that observed in alkyl analogs.

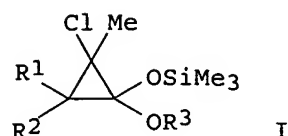
L5 ANSWER 107 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1982:492540 CAPLUS
DN 97:92540
TI Steric course of the substitution at the cyclopropane skeleton by cobal(I)oxime. Synthesis and characterization of cyclopropylcobaloximes
AU Schaeffler, Juergen; Deppisch, Bertold; Retey, Janos
CS Inst. Org. Chem., Univ. Karlsruhe, Karlsruhe, D-7500, Fed. Rep. Ger.
SO Chemische Berichte (1982), 115(6), 2229-41
CODEN: CHBEAM; ISSN: 0009-2940
DT Journal
LA German
OS CASREACT 97:92540
AB 7,7-Dibromo- (I) and exo- (II) and endo-7-bromodibenzo[b,d]norcaradiene (III) were synthesized and reacted with cobal(I)oxime. (7-Bromodibenzo[b,d]norcaradien-7-yl) (pyridine)cobaloxime was formed from I, along with (dibenzo[b,d]norcaradien-7-yl) (pyridine)cobaloxime (IV) and (dibenzo[a,c]cycloheptatrien-6-yl) (pyridine)cobaloxime, whereas the reaction of II yielded IV as the sole alkylcobaloxime. Under the same conditions III was inert. The substitution in II occurred with retention of configuration, whereas the analogous substitution in the 2 enantiomeric 1-bromo-1-methyl-2,2-diphenylcyclopropanes occurred with racemization. The observed retention was caused merely by steric effects; cyclopropyl radical intermediates occurred in both cases.

L5 ANSWER 108 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1982:438516 CAPLUS
DN 97:38516
TI Stereochemistry of electroreductions of bromocyclopropanes. 1-Asymmetric electrochemical synthesis by reduction at a mercury cathode in the presence of adsorbed alkaloids
AU Hazard, R.; Jaouannet, S.; Tallec, A.
CS Lab. Electrochim., Univ. Rennes, Rennes, 35042, Fr.
SO Tetrahedron (1982), 38(1), 93-102
CODEN: TETRAB; ISSN: 0040-4020
DT Journal
LA English
GI



AB The asym. electrochem. reduction of cyclopropanes I (R = Br, CO₂H, CO₂Me) in the presence of adsorbed alkaloid cations is reported. For the reduction of I (R = Br), optical yields of <45% (-)-I (R = H) were obtained in the presence of adsorbed emetine cations. The mechanism involves preferential presentation of 1 stereotopic face of the substrate at the Hg cathode made chiral by adsorption of the alkaloid, followed by protonation of the acidic form of the inductor of the carbanion resulting from a 2-electron reduction

L5 ANSWER 109 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1982:423265 CAPLUS
DN 97:23265
TI Reaction of chloromethylcarbene with ketene alkyl silyl acetals; a new synthesis of 2-methyl-2-alkenoic esters
AU Slougui, Nasser; Rousseau, Gerard; Conia, Jean Marie
CS Lab. Carbocycles, Univ. Paris-Sud, Orsay, F-91405, Fr.
SO Synthesis (1982), (1), 58-60
CODEN: SYNTBF; ISSN: 0039-7881
DT Journal
LA English



AB The title reaction was described and discussed. Silylating $R_1R_2CHCO_2R_3$ [$R_1 = H, Me, Et, pentyl, CMe_3, Ph, CHMeEt$; $R_2 = H, Me, Ph$; $R_1R_2 = (CH_2)_4$; $R_3 = CH_2Ph, Me, Et$] with Me_3SiCl [$LiN(CHMe_2)_2, THF$] gave 50-91% (E)- and (Z)- $R_1R_2C:C(OR_3)OSiMe_3$ which cyclized with $:CClMe$ (from Cl_2CHMe and $BuLi$) in hexane to give diastereoisomeric cyclopropanes I. These were immediately refluxed 6 h in $MeOH-NEt_3$ to give 32-95% (E)- and (Z)- $R_1R_2C:CMeco_2R_3$.

L5 ANSWER 110 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1982:422938 CAPLUS

DN 97:22938

TI Products and kinetic substituent effects in the reactions of diaryldiazomethanes with 2,5-dichloro-p-benzoquinone

AU Oshima, Takumi; Nagai, Toshikazu

CS Coll. Gen. Educ., Osaka Univ., Toyonaka, 560, Japan

SO Bulletin of the Chemical Society of Japan (1982), 55(2), 551-4

CODEN: BCSJA8; ISSN: 0009-2673

DT Journal

LA English

OS CASREACT 97:22938

AB $(RC_6H_4)_2CN_2$ ($R = p-MeO, p-Me, H, p-Cl$) react with 2,5-dichloro-p-benzoquinone at its conjugated C:C and C:O bonds to give bicyclic diones and poly(2,5-dichlorohydroquinone benzhydryl ethers), resp., obeying a 2nd-order rate law. The product ratios of the polyethers to the bicyclic diones increased from 1.1 to 8.1 with the electron-donating ability of the substituents. The presence of $MeOH$ as a trapping agent stopped the polymerization completely and afforded the methanolysis product, though no essential change was found in the formation of the bicyclic dione.

L5 ANSWER 111 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1982:180436 CAPLUS

DN 96:180436

TI Cyclopropanes. XLI. Electron transfer from lithium metal surfaces to (\pm) and $(-)$ -(S)-1-fluoro-1-methyl-2,2-diphenylcyclopropane

AU Walborsky, H. M.; Powers, E. J.

CS Chem. Dep., Florida State Univ., Tallahassee, FL, 32306, USA

SO Israel Journal of Chemistry (1981), 21(2-3), 210-20

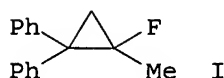
CODEN: ISJCAT; ISSN: 0021-2148

DT Journal

LA English

OS CASREACT 96:180436

GI

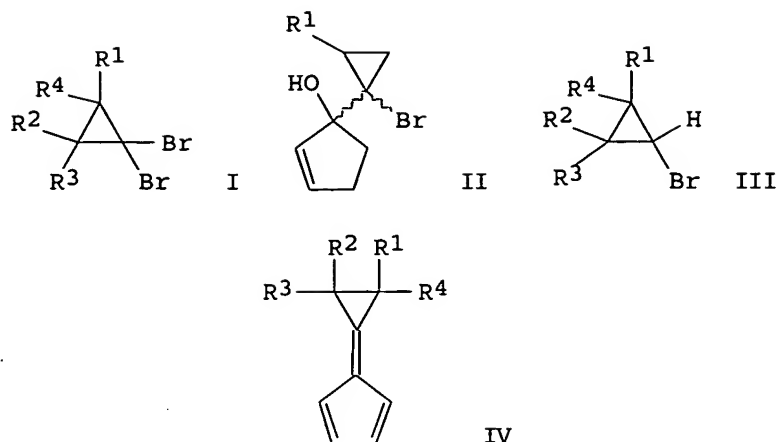


AB The reaction of (\pm) -I with Li metal produced a variety of ring-opened, as well as cyclopropane, products. Initial electron transfer from the Li metal surface is to the Ph ring of I rather than to the C-F bond. Using chiral I, the 1-lithio-1-methyl-2,2-diphenylcyclopropane produced yielded, upon carbonation, the corresponding acid which was largely racemized. The mechanism of the electron transfer reaction is discussed.

L5 ANSWER 112 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1982:143001 CAPLUS
 DN 96:143001
 TI Stability and oxidative coupling of chiral vinyl- and cyclopropylcopper reagents. Formation of a novel dissymmetric diene
 AU Walborsky, H. M.; Banks, R. B.; Banks, M. L. A.; Duraisamy, M.
 CS Chem. Dep., Florida State Univ., Tallahassee, FL, 32306, USA
 SO Organometallics (1982), 1(4), 667-74
 CODEN: ORGND7; ISSN: 0276-7333
 DT Journal
 LA English
 GI For diagram(s), see printed CA Issue.
 AB Chiral (S)-[(4-methylcyclohexylidene)methyl]-[(S)-I] and (S)-(1-methyl-2,2-diphenylcyclopropyl)copper (II) were prepared and are optically stable. Oxidative coupling of (R)-I leads to the formation of an unusual chiral 1,3-diene having biaxial dissymmetry, (+)-(aR,aR)-bis(4-methylcyclohexylidene)ethane (III), the chiroptical properties of which are reported. The thermal and dioxygen reaction of I aggregate lead to a variety of reactions other than coupling to give chiral and meso-bis(1-methyl-2,2-diphenylcyclopropane), resp. The radical nature of the reaction was discussed.

L5 ANSWER 113 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1982:51424 CAPLUS
 DN 96:51424
 TI Heterogeneous hydrogenation of organic halogen compounds using carrier-fixed organotin hydride
 AU Schumann, Herbert; Pachaly, Bernd
 CS Inst. Anorg. Anal. Chem., Tech. Univ., Berlin, D-1000/12, Fed. Rep. Ger.
 SO Angewandte Chemie (1981), 93(12), 1092-3
 CODEN: ANCEAD; ISSN: 0044-8249
 DT Journal
 LA German
 AB Carrier-fixed organotin hydrides were obtained by treating (MeO)₃SiXSnBu₂H (X = CH₂CH₂, MeCH) with Al₂O₃ and (EtO)₃SiCH₂CH₂SSnClR₂ (R = Bu, Ph) with silica gel, followed by treatment with (Me₂CHCH₂)₂AlH. The resulting hydrides reduced MeI, BuBr, and 1,1-dichloro-2,2-diphenylcyclopropane to the corresponding hydrocarbons.

L5 ANSWER 114 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1981:550000 CAPLUS
 DN 95:150000
 TI Fulvenes and fulvalenes. 31. Reactions of cyclopropyllithium carbenoids with cyclopentenone
 AU Sabbioni, Gabriele; Weber, Andreas; Galli, Roberto; Neuenschwander, Markus
 CS Inst. Org. Chem., Univ. Bern, Bern, CH-3012, Switz.
 SO Chimia (1981), 35(3), 95-7
 CODEN: CHIMAD; ISSN: 0009-4293
 DT Journal
 LA German
 OS CASREACT 95:150000
 GI



AB The attempted synthesis of 5,6-dihydrocalicenes was used to check the versatility of the addition of Li cyclopropylcarbenoids to 2-cyclopentenone. Li carbenoids, prepared by the reaction of BuLi with dihalocyclopropanes I [R1-R4 = Me; R1 = R4 = H, R2 = R3 = Ph; R1R2 = (CH2)4, R1 = Et, R2 = Me, R1R2 = CH2OCH2, R3 = R4 = H; R1 = Et, R3 = Me, R2 = R4 = H; R1 = EtO, SiMe3, PhS, MeS, R2-R4 = H], attack the carbonyl C atom of cyclopentenone as long as the substituents are small to give II (R1 = Me, EtO, Me3Si, MeS). Otherwise, the main reaction is a deprotonation of cyclopentenone to give III. The former reaction was used to prepare dihydrocalicenes IV (R1 = Et, R2 = R4 = H, R3 = Me; R1 = Me3Si, R2-R4 = H).

L5 ANSWER 115 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1981:549996 CAPLUS

DN 95:149996

TI The chemistry of small ring compounds. Part 43. Synthesis of 1-substituted cyclopropyl sulfides

AU Jorritsma, R.; Steinberg, H.; De Boer, T. J.

CS Lab. Org. Chem., Univ. Amsterdam, Amsterdam, 1018 WS, Neth.

SO Recueil des Travaux Chimiques des Pays-Bas (1981), 100(5), 184-94

CODEN: RTCPA3; ISSN: 0034-186X

DT Journal

LA English

OS CASREACT 95:149996

AB 1-Hydroxy- and 1-halocyclopropyl sulfides can be prepared starting from cyclopropanone. Cyclopropyl sulfides with a halogen or a dimethylsulfonium group in the α -position can be transformed into 1-substituted cyclopropyl sulfides with a variety of nucleophiles. Thus, the usual difficulties encountered with nucleophilic substitution at three-membered rings, i.e. low rates and ring opening, are largely removed by the presence of an alkylthio group at the same ring carbon atom as the leaving group.

L5 ANSWER 116 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1981:497205 CAPLUS

DN 95:97205

TI Synthesis and ring cleavage of highly substituted 1,1-dichloro- and 1-bromo-1-fluorocyclopropanes

AU Anke, Lutz; Reinhard, Detlef; Weyerstahl, Peter

CS Inst. Org. Chem., Tech. Univ. Berlin, Berlin, D-1000/12, Fed. Rep. Ger.

SO Liebigs Annalen der Chemie (1981), (4), 591-602

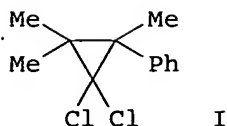
CODEN: LACHDL; ISSN: 0170-2041

DT Journal

LA German

OS CASREACT 95:97205

GI



AB In the carbene reaction of 21 tri- and tetrasubstituted olefins, most gave high yields of dihalocyclopropanes (e.g., $\text{Me}_2\text{C}:\text{CMePh}$ gave 91% I), but the highly hindered $\text{PhMeC}:\text{CPh}_2$, $(\text{PhCH}_2)_2\text{C}:\text{C}(\text{CH}_2\text{Ph})_2$, and 9,9'-bifluorenylidene did not react, and in borderline cases [e.g., (Z)- $\text{PhMeC}:\text{CMePh}$] ring cleavage products were observed

L5 ANSWER 117 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1981:424102 CAPLUS

DN 95:24102

TI Experimental evidence for orbital symmetry control of stereochemistry in some (methylenecyclopropane)iron-carbonyl reactions

AU Pinhas, Allan R.; Samuelson, Ashoka G.; Risemberg, Rafael; Arnold, Edward V.; Clardy, Jon; Carpenter, Barry K.

CS Dep. Chem., Cornell Univ., Ithaca, NY, 14853, USA

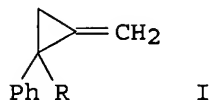
SO Journal of the American Chemical Society (1981), 103(7), 1668-75

CODEN: JACSAT; ISSN: 0002-7863

DT Journal

LA English

GI



AB The reactions of I[R = H(II), Rh(III)] with Fe-CO reagents are observed. The stereochem. of ring opening of II to (1-phenyltrimethylenemethane)iron tricarbonyl is determined by stereospecific D-labeling. The D-labeling also allows information to be gained about the conversion of II to [(E)-1-phenylbutadiene]iron tricarbonyl. An $\text{Fe}(\text{CO})_4$ complex obtained from the reaction of III with $\text{Fe}_2(\text{CO})_9$ is identified crystallog.; this compound is a plausible intermediate in the formation of (1,1-diphenyltrimethylenemethane)iron tricarbonyl. A general mechanism, which is consistent with the stereochem. predictions based on frontier MO symmetry considerations, is presented for all these reactions. This mechanism is also an alternative for the reaction of $\text{Fe}_2(\text{CO})_9$ with methylenecyclopropane.

L5 ANSWER 118 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1981:208399 CAPLUS

DN 94:208399

TI Reaction of 1,1-difluorocyclopropanes with organolithium compounds

AU Suda, Minoru

CS Sagami Chem. Res. Cent., Kanagawa, 229, Japan

SO Tetrahedron Letters (1980), 21(45), 4355-8

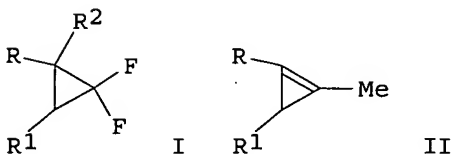
CODEN: TELEAY; ISSN: 0040-4039

DT Journal

LA English

OS CASREACT 94:208399

GI



AB Substituted 1,1-difluorocyclopropanes reacted with organolithium reagents to give either cyclopropenes or monosubstituted acetylenes depending on the substituents on the cyclopropane ring. E.g., difluorocyclopropanes I [R = Ph, R1 = R2 = H; RR1 = (CH2)6, R2 = H] reacted with MeLi to give the cyclopropenes II [R = Ph, R1 = H; RR1 = (CH2)6,], whereas I (R = Ph, R1 = H, R2 = Me, Ph) reacted with BuLi to give PhC(Bu)(R)C≡CH (R = Me, Ph, resp.). The mechanism of the transformations are discussed.

L5 ANSWER 119 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1981:203791 CAPLUS

DN 94:203791

TI Structure-activity relationships of DDT-type analogs based on in vivo toxicity to the sensory nerves of the cockroach, *Periplaneta americana* L
AU Brown, Daniel D.; Metcalf, Robert L.; Sternburg, James G.; Coats, Joel R.
CS Dep. Entomol., Univ. Illinois, Urbana, IL, 61801, USA
SO Pesticide Biochemistry and Physiology (1981), 15(1), 43-57
CODEN: PCBPBS; ISSN: 0048-3575

DT Journal

LA English

AB Forty-three DDT [50-29-3]-type compds. were applied in saline suspension to the crural nerve of *P. americana* and the threshold concentration (ED50) to produce trains of impulses was determined together with the frequency of appearance of repetitive afterdischarge. These quant. neurol. measures were evaluated in multiple regression analyses of structural parameters including van der Waal's volume, the F and R components of Hammett's σ , and the hydrophobic constant Π . This structure-activity anal. provides an accurate estimation of the intrinsic toxicity of the DDT analogs. The results affirm previous working theories that the bulk of the functional groups within the DDT framework is the primary factor relating to activity; however, conformation is also an important parameter.

L5 ANSWER 120 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1981:174160 CAPLUS

DN 94:174160

TI Conformation of bis(p-chlorophenyl)- β -trichloroethane and some of its analogs in solutions

AU Arbuzov, B. A.; Timosheva, A. P.; Vul'fson, S. G.; Karelov, A. A.; Vereshchagin, A. N.

CS Inst. Org. Fiz. Khim. im. Arbuzova, Kazan, USSR

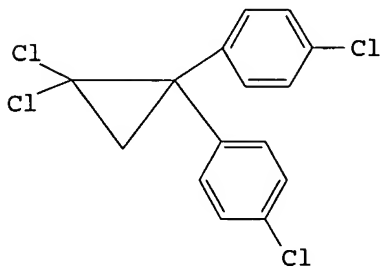
SO Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya (1981), (1), 124-7

CODEN: IASKA6; ISSN: 0002-3353

DT Journal

LA Russian

GI



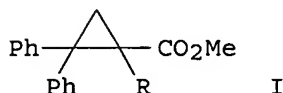
AB The dipole moments and Kerr consts. of Cl₃CCH(C₆H₄R-4)₂ (R = H, Me, Cl, Br) indicated that the aliphatic C-H bond was eclipsed by one of the aryl rings and that the other ring made an angle of 85° with the CAr-C-CAr plane. DDT and I had similar conformations.

L5 ANSWER 121 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1981:174031 CAPLUS

DN 94:174031

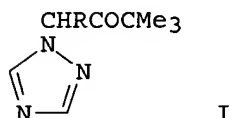
TI An extension of the linear relationship between molecular rotation and bond refraction
 AU Poh, Bo-Long
 CS Sch. Chem. Sci., Univ. Sains Malaysia, Penang, Malay.
 SO Australian Journal of Chemistry (1980), 33(7), 1409-17
 CODEN: AJCHAS; ISSN: 0004-9425
 DT Journal
 LA English
 AB For the empirical equations $[M]D = m\sum RD + I$; $[M]D$ is the mol. rotation, $\sum RD$ is the sum of bond refractions, and m and I are consts. for a given series of compds., a different treatment of the term $\sum RD$ extends the usefulness of the equation to all types of substituents, not just monovalent and linear substituents.
 L5 ANSWER 122 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1981:46648 CAPLUS
 DN 94:46648
 TI Electroreduction of optically active 1-bromo-1-carbomethoxy-2,2-diphenylcyclopropane: factors influencing stereoselectivity
 AU Jaouannet, S.; Hazard, R.; Tallec, A.
 CS Lab. Electrochim., Univ. Rennes, Rennes, 35042, Fr.
 SO Journal of Electroanalytical Chemistry and Interfacial Electrochemistry (1980), 111(2-3), 397-400
 CODEN: JEIEBC; ISSN: 0022-0728
 DT Journal
 LA English
 GI



AB The stereoselectivity in the reduction of (+)(S)-I (R = Br) to give varying amts. of (-)(R)-I (R = H) depended on the composition of the supporting electrolyte and the value of the elec. potential used. The proton-donating ability of the supporting electrolyte is important; the faster the protonation, the higher the percentage of retention of configuration.
 L5 ANSWER 123 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1981:46643 CAPLUS
 DN 94:46643
 TI Magnetic and other field effects on prochiral chemical reactions
 AU Piotrowska, Krystyna; Edwards, Deborah; Mitch, Alan; Dougherty, Ralph C.
 CS Dep. Chem., Florida State Univ., Tallahassee, FL, 32306, USA
 SO Naturwissenschaften (1980), 67(9), 442-5
 CODEN: NATWAY; ISSN: 0028-1042
 DT Journal
 LA English
 AB Expts. are reported in which 3 prochiral organic reactions were conducted in the presence of a .apprx.1T magnetic field which was oriented with reference to the earth's geometric axes. The sign and magnitude of the rotation varied with the macroscopic orientation of the magnetic field and the time that the reaction was performed. Control measurements were in accord with expectations. The fact that the sign of the observed optical rotation of the product was reversed for all 3 reported reactions when the magnetic field was reversed for reactions conducted on the same day suggests that either the observed asym. synthesis was due to the reactions being conducted in a chiral phys. field or extremely unusual stochastic processes were involved.
 L5 ANSWER 124 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1980:638232 CAPLUS
 DN 93:238232
 TI Addition of diphenylmethylene to 1,2-dichloroethylenes. New chemical

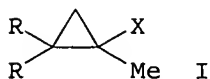
evidence for a carbene singlet-triplet equilibrium
 AU Gaspar, Peter P.; Whitsel, Bonnie L.; Jones, Maitland, Jr.; Lambert, Joseph B.
 CS Dep. Chem., Washington Univ., St. Louis, MO, 63130, USA
 SO Journal of the American Chemical Society (1980), 102(19), 6108-13
 CODEN: JACSAT; ISSN: 0002-7863
 DT Journal
 LA English
 AB Addition of diphenylmethylene to cis- and trans-1,2-dichloroethylene gives the corresponding 1,2-dichloro-3,3-diphenylcyclopropane with greater than 90% stereospecificity. A product of addition with rearrangement, 3,3-dichloro-1,1-diphenyl-1-propene, is also obtained; this is the major product from trans olefin. The cyclopropane product arises principally from concerted addition by the singlet carbene, while the rearrangement product is assigned to the triplet carbene. Neither competition from another olefin nor moderation by hexafluorobenzene alters the product ration from addition of diphenylmethylene to dichloroethylenes, thus, establishment of a singlet-triplet equilibrium for diphenylmethylene under the conditions employed for olefin addition reactions is suggested.

L5 ANSWER 125 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1980:619968 CAPLUS
 DN 93:219968
 TI Liquid chromatography on triacetylcellulose. 3. Liquid chromatography of enantiomers: determination of enantiomer purity in spite of peak overlapping
 AU Mannschreck, Albrecht; Mintas, Mladen; Becher, Georg; Stuehler, Georgine
 CS Inst. Chem., Univ. Regensburg, Regensburg, D-8400, Fed. Rep. Ger.
 SO Angewandte Chemie (1980), 92(6), 490-1
 CODEN: ANCEAD; ISSN: 0044-8249
 DT Journal
 LA German
 GI



AB Using the title liquid chromatog. method, the enantiomeric purities of (R)-I (R = p-ClC₆H₄O), (S)-(HOCH₂CBr:CB₂)₂, and (R)-1-bromo-2,2-diphenylcyclopropane samples were ≤87, 29, and, 71%, resp.

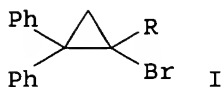
L5 ANSWER 126 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1980:585618 CAPLUS
 DN 93:185618
 TI Alternative pathways in the reactions of cyclopropyl halides with alkali metal naphthalenes
 AU Boche, G.; Schneider, D. R.; Wintermayr, H.
 CS Inst. Org. Chem., Univ. Muenchen, Munich, D-8000/2, Fed. Rep. Ger.
 SO Journal of the American Chemical Society (1980), 102(17), 5697-9
 CODEN: JACSAT; ISSN: 0002-7863
 DT Journal
 LA English
 GI



AB Cyclopropyl halides with good electron-accepting substituents (e.g., I; R = Ph or R₂ = 2,2'-biphenylene; X = halo) react with alkali metal

naphthalenes in THF or (MeOCH₂)₂ to give the corresponding cyclopropanes with net retention of configuration. The retention is not due to the successful competition of electron transfer to and inversion of the intermediate cyclopropyl radicals, as suggested earlier by J. Jacobus and D. Pensak (1969). Rather, the inversion of secondary and tertiary cyclopropyl radicals is much faster ($k \geq 10^9$ s⁻¹; $\Delta G_{\text{thermod}}$. 3.7 kcal-mol⁻¹) than electron transfer from naphthalene radical anions.

- L5 ANSWER 127 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1980:420664 CAPLUS
DN 93:20664
TI Insect sensory nerve potentials: effects of insecticides
AU Holan, G.; Poppleton, B. J.; Spurling, T. H.; Virgona, C. T.
CS Div. Appl. Org. Chem., CSIRO, Melbourne, 3001, Australia
SO Insect Neurobiol. Pestic. Action, Proc. Soc. Chem. Ind. Symp. (1980), Meeting Date 1979, 73-8 Publisher: Soc. Chem. Ind., London, Engl.
CODEN: 42YIA8
DT Conference
LA English
AB Electrophysiol. studies were made on the isolated labellar hair of the blowfly (*Luncilia cuprina*) treated with insecticides. The spike-potential multiplicity index (Holan, G., 1975) vs. threshold curves differed for pyrethroid-DDT compds., such as 4-ethoxyphenyl-1-(3-phenoxybenzyl)-2,2-dichlorocyclopropanecarboxylate, as compared to DDT-type compds., such as 2,2-bis(4-ethoxyphenyl)-3,3-dimethyloxetane [32795-78-1]. The 2 groups of insecticides act by different mechanisms. Computer-generated models were produced for simulated nerve spike trains.
- L5 ANSWER 128 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1979:574923 CAPLUS
DN 91:174923
TI Synthesis and properties of 1,1-diiodo- and 1-iodo-1-x-cyclopropanes
AU Mathias, Rolf; Weyerstahl, Peter
CS Inst. Org. Chem., Tech. Univ. Berlin, Berlin, D-1000/12, Fed. Rep. Ger.
SO Chemische Berichte (1979), 112(9), 3041-53
CODEN: CHBEAM; ISSN: 0009-2940
DT Journal
LA German
OS CASREACT 91:174923
AB 1,1-Diiodo-2-phenylcyclopropane (I) underwent Grignard reaction with acetone to give α,α -dimethyl-2-phenylcyclopropanemethanol (with complete elimination of iodine) or with EtBr to give chiefly 1-iodo-1-phenylcyclopropane isomers, and it reacted with LiCuR₂ (R = Me, Bu, Ph or vinyl) to give the corresponding 1-hydrocarbyl-1-iodo-2-phenylcyclopropane. The iodine atom was similarly replaced in reactions of 1-halo-1-iodo-2-phenylcyclopropanes. With 4-MeC₆H₄SO₃Ag or (AcO)₂Hg, I was cleaved to give products arising from the resultant allyl cation.
- L5 ANSWER 129 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1979:574858 CAPLUS
DN 91:174858
TI Electrochemical asymmetric synthesis. Reduction of 1,1-dibromo-2,2-diphenylcyclopropane
AU Hazard, R.; Jaouannet, S.; Tallec, A.
CS Lab. Electrochim., Univ. Rennes, Rennes, Fr.
SO Tetrahedron Letters (1979), (13), 1105-8
CODEN: TELEAY; ISSN: 0040-4039
DT Journal
LA French
GI



AB Cyclopropane I (R = Br) underwent electrochem. debromination at the sp³ prochiral C atom, in the presence of strychnine or emetine adsorbed at a Hg cathode at pH 4.7 and 9.7, to give (-)(R)-I (R = H) as the major product. In the presence of adsorbed yohimbine in acetate buffer at pH 4.7 electrochem. asym. reduction of I (R = Br) gave (+)(S)-I (R = H).

L5 ANSWER 130 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1979:456025 CAPLUS
DN 91:56025

TI Thermal isomerization of arylmethylenecyclopropanes to indenenes: the question of orbital symmetry control as a factor in hydrogen transport

AU Gilbert, J. C.; Kurzawa, F.

CS Dep. Chem., Univ. Texas, Austin, TX, 78712, USA

SO Journal of Organic Chemistry (1979), 44(13), 2123-6

CODEN: JOCEAH; ISSN: 0022-3263

DT Journal

LA English

AB Examination of the D distribution of the 2-methyl-3-phenylindene resulting from rearrangement of 2-phenyl-2-(perdeuteriophenyl)methylene cyclopropane demonstrates conclusively that orbital symmetry does not control the net 1,7-H migration required to produce the indene. An alternative explanation is offered for the necessity of having diaryl substitution at C-2 of the methylenecyclopropane in order to observe the isomerization.

L5 ANSWER 131 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1979:455808 CAPLUS
DN 91:55808

TI Electrocyclic ring opening of cyclopropyl halides in the course of their reaction with sodium iodide in acetone

AU Luckenbach, Reiner; Mueller, Nikolaus

CS Org.-Chem. Inst., Univ. Mainz, Mainz, Fed. Rep. Ger.

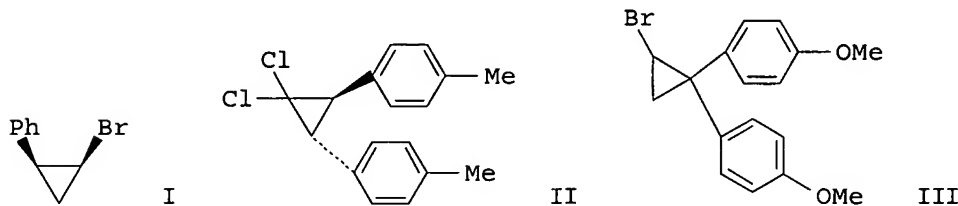
SO Zeitschrift fuer Naturforschung, Teil B: Anorganische Chemie, Organische Chemie (1979), 34B(3), 464-80

CODEN: ZNBAD2; ISSN: 0340-5087

DT Journal

LA German

GI



AB Reaction of cyclopropyl halides (e.g., I-III) with NaI in Me₂CO (i.e. under typical S_N2-conditions), proceeded via ring opening to allylic systems finally yielding 1,5-hexadienes on dimerization; ring-retained products were not detected. Woodward-Hoffman rules indicate a cationic synchronous mechanism. The kinetic data fit the Hammett equation using σ -values for cyclopropyl bromides and σ^+ -values for geminal cyclopropyl dichlorides, resp. The validity of the Woodward-Hoffmann-De Puy rule (according to which in synchronous reactions leaving groups situated endo are strongly favored over those situated exo) was tested in corresponding expts. involving condensed ring systems.

L5 ANSWER 132 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1979:404980 CAPLUS
DN 91:4980

TI Multiple bond activity in the adamantane ring in a reaction with dichlorocarbene

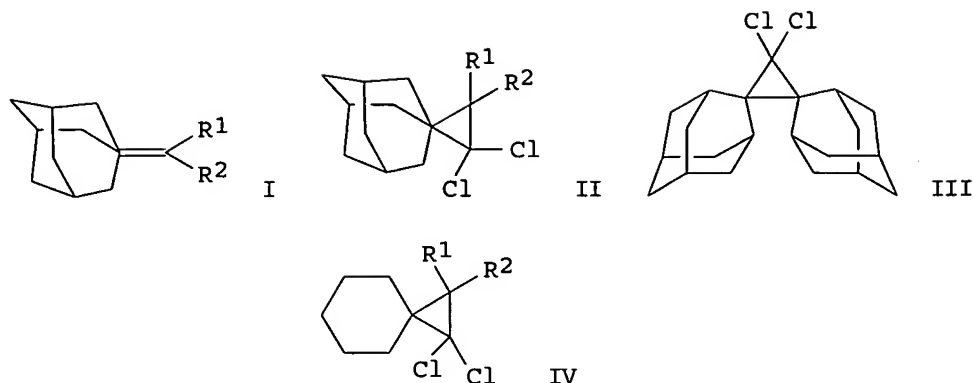
AU Kostikov, R. R.; Grishina, E. N.; Slobodin, Ya. M.

CS Sev.-Zapadn. Zaochn. Politekh. Inst., Leningrad, USSR

SO Zhurnal Organicheskoi Khimii (1979), 15(2), 331-6

CODEN: ZORKAE; ISSN: 0514-7492

DT Journal
LA Russian
GI



AB Reaction of methyleneadamantane I ($R_1 = H, Me, Et, Me_2CH, Me_2CHCH_2, Ph$; $R_2 = H, Me, Ph$) with $:CCl_2$ gave 40-67% II. Similarly, treatment of diadamantylidene with $:CCl_2$ gave 9% III. Spiro compds. IV ($R_1 = R_2 = Me, Ph$) were prepared similarly from the appropriate methylenecyclohexanes. The IR and NMR of II, III and IV were tabulated. The rate consts. of the reaction of $R_2C:CR_1R_2$ ($R_2 = 2\text{-adamantylidene}, (CH_2)_5$; $R = Me, H$; $R_1 = H, Me, Ph$; $R_2 = H, Me, Et, Me_2CH, Me_2CHCH_2, Ph, Me$) with $:CCl_2$ were determined

L5 ANSWER 133 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1979:163290 CAPLUS
DN 90:163290

TI Influence of temperature on the toxicity of insecticides to susceptible and resistant house flies

AU DeVries, Donald H.; Georgiou, George P.
CS Dep. Entomol., Univ. California, Riverside, CA, USA
SO Journal of Economic Entomology (1979), 72(1), 48-50
CODEN: JEENAI; ISSN: 0022-0493

DT Journal
LA English

AB The influence of posttreatment temperature on the toxicity of 6 insecticides was investigated on a susceptible and 2 resistant strains of *Musca domestica*. The toxicity of dimethoate [60-51-5], parathion [56-38-2], and Isolan [119-38-0] was unaffected by temperature within the range of 15-25°. Bioresmethrin [28434-01-7], lindane [58-89-9] and CP 47412 (1,1-di(p-chlorophenyl)-2,2-dichlorocyclopropane) [3575-15-3] manifested greater toxicity at 15°. This effect was more pronounced in the resistant strains but did not reduce resistance more than 1.6-fold. Apparently, temperature within the range tested has no influence on potential resistance in the field.

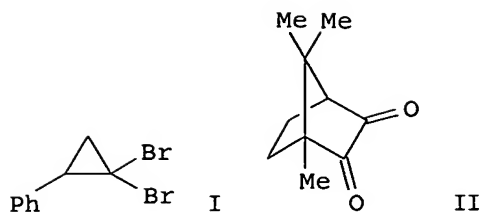
L5 ANSWER 134 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1979:86832 CAPLUS
DN 90:86832

TI Selective reduction of organic halides and α -diketones by $MoH_2(\eta-C_5H_5)_2$

AU Nakamura, Akira
CS Fac. Sci., Osaka Univ., Toyonaka, Japan
SO Journal of Organometallic Chemistry (1979), 164(2), 183-92
CODEN: JORCAI; ISSN: 0022-328X

DT Journal
LA English

GI



AB A systematic study of reaction of organic halides with MoH_2Cp_2 ($\text{Cp} = \eta^5\text{-C}_5\text{H}_5$) was performed and the results were compared with those of WH_2Cp_2 , $\text{MoH}_4(\text{dppe})_2$ ($\text{dppe} = 1,2\text{-bis(diphenylphosphino)ethane}$), and $\text{FeH}_2(\text{dppe})_2$. Among many organic halides, I was reduced stereoselectively by MoH_2Cp_2 to the monobromo stage. The reaction mechanism was studied with optically active $\text{PhCH}(\text{Cl})\text{CO}_2\text{Et}$ and also with addition of some radical reagents to reveal a radical-chain mechanism. Selective reduction of α -dicarbonyl compds., e.g., I, to the α -ketol was effected by MoH_2Cp_2 . A similar radical mechanism is proposed for this novel reaction.

L5 ANSWER 135 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1979:86307 CAPLUS

DN 90:86307

TI Reaction of dichlorocarbene with phenyl-substituted ethylenes

AU Kostikov, R. R.; Drygailova, E. A.; Morzhakova, T. M.; Ogloblin, K. A.

CS USSR

SO Vestnik Leningradskogo Universiteta, Seriya 4: Fizika, Khimiya (1978), (3), 114-19

CODEN: VLUFBI; ISSN: 0024-0826

DT Journal

LA Russian

AB The relative reactivity of the title olefins toward Cl_2C : decreased in the order $\text{Ph}_2\text{C}:\text{CH}_2 > \text{PhCH}:\text{CH}_2 > (\text{E})\text{-PhCMe}:\text{CHPh} > \text{Ph}_2\text{C}:\text{CHMe} > (\text{E})\text{-PhCH}:\text{CHPh}$. apprx. $\text{Ph}_2\text{C}:\text{CMe}_2$. Tetrasubstituted ethylenes did not react. A correlation of the relative reactivity with the free valence index was noted.

L5 ANSWER 136 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1979:71791 CAPLUS

DN 90:71791

TI Synthesis and reactions of 1-chloro-1-cyclopropanecarboxylic acids and 1-cyclopropene-1-carboxylic acids

AU Sander, Volker; Weyerstahl, Peter

CS Inst. Org. Chem., Tech. Univ. Berlin, Berlin, Fed. Rep. Ger.

SO Chemische Berichte (1978), 111(12), 3879-91

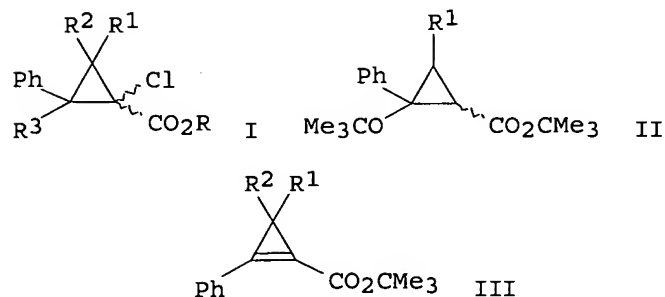
CODEN: CHBEAM; ISSN: 0009-2940

DT Journal

LA German

OS CASREACT 90:71791

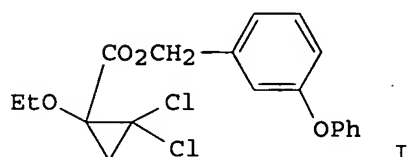
GI



AB Cyclopropanecarboxylic acids I ($\text{R} = \text{H}$) [R_1 and R_2 (the same or different) are H , Me , Ph , cyclopropyl; $\text{R}_3 = \text{H}$, Ph] were prepared by lithiating

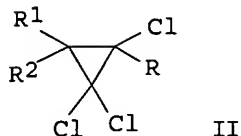
1,1-dichlorocyclopropanes, followed by carboxylation with CO₂. I (R = Me, CMe₃) were obtained by esterification. I (R = CMe₃; R₁ = H, Me; R₂ = R₃ = H) reacted with KO^tCMe₃ to give II (R₁ = H, Me). Reaction of I (R = CMe₃; R₁ = R₂ = Me, Ph; R₃ = H) with KO^tCMe₃ gave III, which were hydrogenated to the corresponding cyclopropanes.

L5 ANSWER 137 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1978:524490 CAPLUS
 DN 89:124490
 TI Structural and biological link between pyrethroids and DDT in new insecticides
 AU Holan, G.; O'Keefe, D. F.; Virgona, C.; Walser, R.
 CS Div. Appl. Org. Chem., CSIRO, Melbourne, Australia
 SO Nature (London, United Kingdom) (1978), 272(5655), 734
 CODEN: NATUAS; ISSN: 0028-0836
 DT Journal
 LA English
 GI



AB Based on the structural model of a nerve membrane receptor for DDT-type insecticides, compds. combining the structural features of both DDT and pyrethroid insecticides were synthesized and found to be active insecticides in houseflies and blowflies (*Lucilia cuprina*). The structural similarity and biol. properties (e.g. contact repellency values) of these compds., e.g. (±)-3'-phenoxybenzyl-p-ethoxyphenyl-2,2-dichlorocyclopropanecarboxylate (I) [63935-32-0] LD50 0.19 µg, related them to both classes of insecticides. The isomer of I was 50- to 60-fold less active than I. In general, esters broadly followed DDT-analog substitution patterns in the aryl ring and the cyclopropane parts of the acid component, whereas the alc. radicals followed the activities for the same components in the pyrethroids, though exceptions were observed. E.g., difluorocyclopropanes, inactive in the DDT series, possessed high activity in the combined form. There was no correlation between the partition coeffs. and the biol. activities of the compds. Low mammalian toxicity was indicated in studies with I. Development of a new range of safe insecticides is, therefore, possible.

L5 ANSWER 138 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1978:508226 CAPLUS
 DN 89:108226
 TI Decarboxylation reaction. VIII. Reaction of electron-deficient carbon-carbon double bonds with trichloroacetic acid. A unique 1,1-dichlorocyclopropane formation through β-trichloromethylation
 AU Nanjo, Katsumi; Suzuki, Kunio; Sekiya, Minoru
 CS Shizuoka Coll. Pharm., Shizuoka, Japan
 SO Chemical & Pharmaceutical Bulletin (1978), 26(3), 848-52
 CODEN: CPBTAL; ISSN: 0009-2363
 DT Journal
 LA English
 OS CASREACT 89:108226
 GI



AB Decarboxylative cycloaddn. of $\text{CCl}_3\text{CO}_2\text{H}$ (I) to $\text{R}_1\text{R}_2\text{C}:\text{CRCN}$ [$\text{R} = \text{CN}, \text{CO}_2\text{Et}, \text{Bz}, \text{SO}_2\text{Ph}$; $\text{R}_1 = \text{Ph}, \text{Et}, \text{Me}_2\text{CH}$; $\text{R}_2 = \text{H}, \text{Me}, \text{Et}, \text{Bu}, \text{Ph}$; $\text{R}_1\text{R}_2 = (\text{CH}_2)_4, (\text{CH}_2)_5$] in ether or THF in the presence of NEt_3 gave II. The same reaction of I with $\text{PhCH}:\text{CR}_3\text{R}_4$ ($\text{R}_3, \text{R}_4 = \text{CN}, \text{CN}; \text{CN}, \text{SO}_2\text{Ph}; \text{H}, \text{NO}_2$; resp.) gave $\text{PhCH}(\text{CCl}_3)\text{CHR}_3\text{R}_4$. A mechanism involving β -trichloromethylated intermediate is postulated.

L5 ANSWER 139 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1978:121030 CAPLUS

DN 88:121030

TI Cyclic peroxides. 60. Prostanoid endoperoxide model compounds: preparation of 1,2-dioxolanes from cyclopropanes

AU Adam, Waldemar; Birke, Arnoldo; Cadiz, Carlos; Diaz, Simon; Rodriguez, Augusto

CS Dep. Chem., Univ. Puerto Rico, Rio Piedras, P. R.

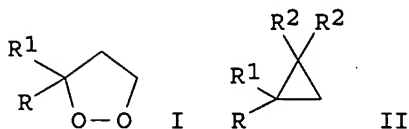
SO Journal of Organic Chemistry (1978), 43(6), 1154-8

CODEN: JOCEAH; ISSN: 0022-3263

DT Journal

LA English

GI



AB 1,2-Dioxolanes I ($\text{R} = \text{Ph}, \text{R}_1 = \text{Ph}, \text{Me}, \text{H}$; $\text{R} = 4\text{-BrC}_6\text{H}_4, \text{R}_1 = \text{Me}, \text{H}$), potential intermediates for prostanoid endoperoxide model compds., were prepared by successive cyclization of CHCl_3 with $\text{Ph}_2\text{C}:\text{CH}_2$, $\text{PhCMe}:\text{CH}_2$, $\text{PhCH}:\text{CH}_2$, NaOH , and methyltricaprylammonium chloride phase-transfer catalysis (51-80% yield), reduction of the dichlorocyclopropane II ($\text{R} = \text{Ph}, \text{R}_1 = \text{Ph}, \text{Me}, \text{H}, \text{R}_2 = \text{Cl}$) with $\text{Na-Me}_3\text{COH}$ in THF (40-84% yields), and hydroperoxybromination of II (R, R_1 the same, $\text{R}_2 = \text{H}$) with H_2O_2 and $\text{N-bromosuccinimide}$ or 1,3-dibromo-5,5-dimethylhydantoin to give 68-87% II ($\text{R} = 4\text{-BrC}_6\text{H}_4, \text{R}_1 = \text{Me}, \text{H}, \text{R}_2 = \text{H}$) and 50-85% $\text{RR}_1\text{C}(\text{OOH})\text{CH}_2\text{CH}_2\text{Br}$ (R, R_1 as for I), which was cyclized with Ag_2O to give I.

L5 ANSWER 140 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1978:37290 CAPLUS

DN 88:37290

TI Synthesis of spatially shielded 3,3-disubstituted cyclopropenes

AU Bovin, N. V.; Surmina, L. S.; Yakushkina, N. I.; Bolesov, I. G.

CS Mosk. Gos. Univ., Moscow, USSR

SO Zhurnal Organicheskoi Khimii (1977), 13(9), 1888-94

CODEN: ZORKAE; ISSN: 0514-7492

DT Journal

LA Russian

GI

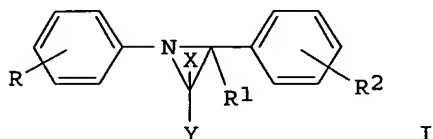


AB Treatment of $\text{CH}_2:\text{CR}_1\text{R}_2$ (R_1, R_2 given; Ph, Ph ; Me, Ph ; $\text{Me}, \text{p-MeOC}_6\text{H}_4$; $\text{Ph}, \text{morpholino}$; Me, Me) with $:\text{CBr}_2$ gave 45-84% I ($\text{R}_3 = \text{Br}$), which were reduced by Bu_3SnH or LiAlH_4 to give 66-90% I ($\text{R}_3 = \text{H}$). I ($\text{R}_3 = \text{H}$) were dehydrobrominated to give 47-80% cyclopropenes II.

L5 ANSWER 141 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

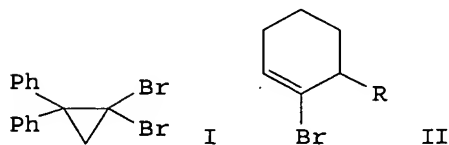
AN 1978:6061 CAPLUS

DN 88:6061
 TI Reaction of dihalocarbenes with aromatic azomethines
 AU Kostikov, R. R.; Khlebnikov, A. F.; Ogloblin, K. A.
 CS Leningr. Gos. Univ., Leningrad, USSR
 SO Zhurnal Organicheskoi Khimii (1977), 13(9), 1857-71
 CODEN: ZORKAE; ISSN: 0514-7492
 DT Journal
 LA Russian
 GI



AB The relative rate consts. and stereochem. of the cycloaddn. of XYZ: (X, Y = F, Cl, Br) to $RC_6H_4N:CR_1C_6H_4R_2$ (R = H, 4-MeO, 3-MeO, 4-Me, 4-Cl, 3-Br; R₁ = H, Me, Et, Me₂CH, Me₃C; R₂ = H, 4-MeO, 3-MeO, 4-Me, 4-Cl, 3-Cl, 3-EtO, 3-Me₃CO) were studied. NMR, IR, and UV data of the aziridine products (I) were given. Linear free energy relations obtained by varying R or R₂ yielded ρ values having magnitudes <0.1. In cases where X ≠ Y, the tendency for a halogen atom to become located syn to the unshared electrons on the N increased in the order Br < Cl < F. MO calcns. indicated that a π approach of the carbene to the N:C bond was preferred.

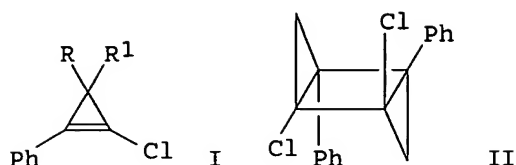
L5 ANSWER 142 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1977:452893 CAPLUS
 DN 87:52893
 TI Chain elongation of alkenes via gem-dihalocyclopropanes:
 1,1-diphenyl-2-bromo-3-acetoxy-1-propene
 AU Sandler, Stanley R.
 CS Chem. Div., Borden, Inc., Philadelphia, PA, USA
 SO Organic Syntheses (1977), 56, 32-5
 CODEN: ORSYAT; ISSN: 0078-6209
 DT Journal
 LA English
 GI



AB Treatment of $Ph_2C:CH_2$ with $CHBr_3-KOCMe_3$ in pentane at 0-25° gave cyclopropane I, which when treated with $AgOAc$ in $HOAc$ at 100-20° gave 72% $Ph_2C:CHBrCH_2OAc$. Similarly ring expansion of cyclopentene gave II (R = OH, Br); the product depended on the conditions for dibromocyclopropane ring opening. $PhCH:CHBrCH_2OAc$ was also obtained from styrene. Five addnl. examples were given.

L5 ANSWER 143 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1977:422629 CAPLUS
 DN 87:22629
 TI Reactions of 1-chloro-2-phenyl-1-cyclopropenes
 AU Henseling, Karl Otto; Quast, Dietrich; Weyerstahl, Peter
 CS Inst. Org. Chem., Tech. Univ. Berlin, Berlin, Fed. Rep. Ger.
 SO Chemische Berichte (1977), 110(3), 1027-33
 CODEN: CHBEAM; ISSN: 0009-2940
 DT Journal

LA German
GI



AB 1-Chloro-2-phenyl-1-cyclopropene (I; R = R1 = H) in benzene at room temperature for 48 h gave 4% the dimer II along with polymeric material. I (R = H, R1 = Me) with KOMe in MeOH gave 24% MeCH:CPhCH(OMe)2. I which are disubstituted at C(3) reacted differently, e.g., I (R,R1 = Me, Me; Me, Ph; Ph, Ph) in benzene gave PhC.tplbond.CCMe:CH2 100, PhC.tplbond.CCPh:CH2 70, or PhC.tplbond.CCPh2OH 12%, resp. The results were interpreted in terms of the stability of the cation PhC.tplbond.CC+RR1.

L5 ANSWER 144 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1977:189253 CAPLUS

DN 86:189253

TI The reduction of gem-dichlorocyclopropanes with lithium aluminum hydride

AU Kusuyama, Yoshiaki; Ikeda, Yoshitsugu

CS Dep. Chem., Wakayama Univ., Wakayama, Japan

SO Nippon Kagaku Kaishi (1977), (2), 290-2

CODEN: NKAKB8; ISSN: 0369-4577

DT Journal

LA Japanese

AB Gem-dichlorocyclopropanes were easily reduced by LiAlH4 in boiling THF to afford cis-trans mixts. of the corresponding monochlorocyclopropanes. Relatively high isomer ratios were obtained for the reduction of (2,2-dichlorocyclopropyl)benzene and 7,7-dichloronorcarane in which a H in the substituent is close to the cis-Cl. The reduction proceeds via a synfacial mechanism in which the attacking hydride and the Cl attacked are on the same side of the cyclopropane plane.

L5 ANSWER 145 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1977:139442 CAPLUS

DN 86:139442

TI Synthesis, ring cleavage reactions, and halogen/lithium exchange of 1-bromo-1-fluorocyclopropanes

AU Mueller, Christian; Stier, Fritz; Weyerstahl, Peter

CS Inst. Org. Chem., Tech. Univ. Berlin, Berlin, Fed. Rep. Ger.

SO Chemische Berichte (1977), 110(1), 124-37

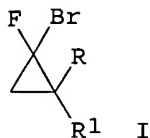
CODEN: CHBEAM; ISSN: 0009-2940

DT Journal

LA German

OS CASREACT 86:139442

GI

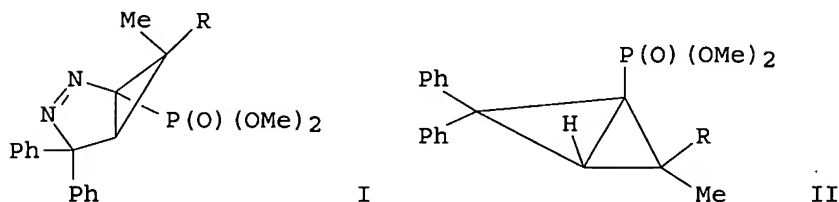


AB The bromofluorocyclopropanes I [R = H, R1 = Me3C, PhO, Ph (II); R = Me, R1 = Me, H2C:CMe, Ph (III); or R = R1 = Et] underwent ring cleavage reactions. II with AcOAg or PhONa gave (Z)-PhCH:CFCH2OR2 (R2 = Ac, Ph) and (Z)-PhCH:CFCH2Br in the case of the PhONa. Cleavage of 1-bromo-1-fluorotetramethylcyclopropane (IV) with di-Et malonate gave Me2C:CFCMe2CH(CO2Et)2. II with PhLi gave phenylallene and PhCH2C.tplbond.CH and with MeLi gave phenylallene and PhCHMeC:CH. II,

III, and IV with BuLi at below -105° underwent selective Br/Li exchange to give, after carboxylation and esterification, 1-fluorocyclopropanecarboxylates. The reaction at from -90 to -100° gave complex mixts.

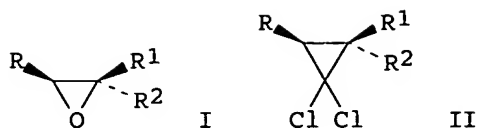
L5 ANSWER 146 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1976:559482 CAPLUS
 DN 85:159482
 TI Basic behavior of epoxides in the presence of halide ions, IV. gem-Difluorocyclopropanes from chlorodifluoromethane and alkoxide ions at low concentration
 AU Kamel, Mona; Kimpenhaus, Wolfgang; Buddrus, Joachim
 CS Natl. Res. Cent., Cairo, Egypt
 SO Chemische Berichte (1976), 109(7), 2351-69
 CODEN: CHBEAM; ISSN: 0009-2940
 DT Journal
 LA German
 AB Gem-difluorocyclopropanes (14) were prepared by treatment of reactive alkenes with difluorocarbene generated by reaction of ClCHF₂ with alkoxides at low concns. The latter were formed by treatment of epoxides (oxirane or epichlorohydrin) with halides (e.g., from Bu₄N⁺Cl⁻). With less reactive alkenes, products from the reaction of the carbene with alcs. (from the epoxides) were also formed.

L5 ANSWER 147 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1976:524029 CAPLUS
 DN 85:124029
 TI Transformation of 2,3-diazabicyclo[3.1.0]hex-2-enes into 1,3-butadienes
 AU Welter, W.; Regitz, M.
 CS Fachbereich Chem., Univ. Kaiserslautern, Kaiserslautern, Fed. Rep. Ger.
 SO Tetrahedron Letters (1976), (18), 1473-6
 CODEN: TELEAY; ISSN: 0040-4039
 DT Journal
 LA German
 GI



AB Photolysis of the 2,3-diazabicyclo[3.1.0]hex-2-enes I (R = Me, CMe₃) gave Ph₂C:CHCMeR(:N₂)P(O)(OMe)₂ which reacted further to give the bicyclo[1.1.0]butanes II; in the presence of Ph₂CO sensitizer Ph₂C:CHC(:CMeR)P(O)(OMe)₂ (III) was formed. Thermolysis of I at ≥150° gave III, Ph₂C:CHCR:CMeP(O)(OMe)₂, and Ph₂C:CHCMe:CRP(O)(OMe)₂. The butadienes were formed via the carbene :C[P(O)(OMe)₂]CMeRCH:CPh₂.

L5 ANSWER 148 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1976:523683 CAPLUS
 DN 85:123683
 TI Stereospecific deoxydichlorocyclopropanation of epoxides by dichlorocarbene generated in an emulsifying system
 AU Tabushi, I.; Kuroda, Y.; Yoshida, Z.
 CS Dep. Pharm. Sci., Kyushu Univ., Fukuoka, Japan
 SO Tetrahedron (1976), 32(9), 997-1000
 CODEN: TETRAB; ISSN: 0040-4020
 DT Journal
 LA English
 GI



AB The epoxides I [R = Ph, Me(CH₂)_n, n = 7, 9, R₁ = R₂ = H; R = Ph, R₁ = Me, R₂ = H; R = Ph, R₁ = H, R₂ = Me; R = H, R₁ = Ph, R₂ = Me; R₁ = (CH₂)₄, R₂ = H] underwent reaction with :CCl₂, generated in an emulsifying system, to give the corresponding dichlorocyclopropene derivs. II. The reaction of cis- and trans-β-methylstyrene oxide (I; R = Ph, R₁ = Me, R₂ = H; R = Ph, R₁ = H, R₂ = Me, resp.) showed the reaction to be stereospecific, giving 95% cis-II and >96% trans-II, resp. Styrene oxide (I; R = Ph, R₁ = R₂ = H) gave II and PhCH:CH₂; the concentration of the latter was nearly constant during the reaction. Further, the competitive reaction of α- and trans-β-methylstyrene oxide (I; R = H, R₁ = Ph, R₂ = Me; R = Ph, R₁ = H, R₂ = Me, resp.) showed that introduction of an addnl. Me group at the α-position accelerated the reaction only 12 times. The reaction involves two steps, namely deoxygenation and dichlorocyclopropanation, both of which are stereospecific and practically concerted.

L5 ANSWER 149 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1976:494027 CAPLUS

DN 85:94027

TI Insecticidal dichlorodiphenylcyclopropanes

IN Holan, George

PA Monsanto Chemicals Ltd., Australia

SO U.S., 5 pp.

CODEN: USXXAM

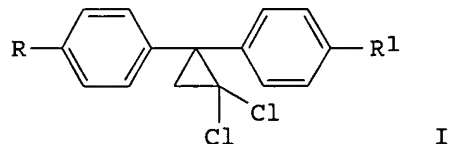
DT Patent

LA English

FAN. CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	US 3962356	A	19760608	US 1974-497776	19740815 <--
	US 3642910	A	19720215	US 1969-834177	19690617 <--
	US 3857956	A	19741231	US 1970-92235	19701123 <--
PRAI	AU 1963-36877	A	19631024		
	US 1964-402949	A1	19641009		
	US 1967-684554	A2	19671120		
	US 1969-834177	A3	19690617		
	US 1970-92235	A3	19701123		

GI



AB The dichlorodiphenylcyclopropanes I (R = R₁ = Et, EtO, Me, MeO, PrO; R, R₁ = MeO, EtO), useful as insecticides, were prepared by insertion reaction of dichlorocarbene with 4-RC₆H₄C(C₆H₄R₁-4):CH₂.

L5 ANSWER 150 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1976:420645 CAPLUS

DN 85:20645

TI 1-Cyclopropene-1-carboxylic acid esters from 1-chloro-1-cyclopropanecarboxylic acids

AU Sander, Volker; Weyerstahl, Peter

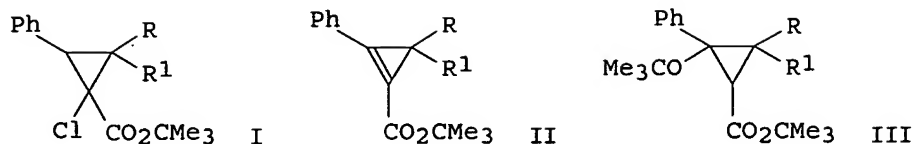
CS Inst. Org. Chem., Tech. Univ. Berlin, Berlin, Fed. Rep. Ger.

SO Angewandte Chemie (1976), 88(8), 259-60

CODEN: ANCEAD; ISSN: 0044-8249

DT Journal

LA German
OS CASREACT 85:20645
GI



AB Chlorocyclopropanecarboxylates I (R = R₁ = Me, Ph) reacted with KOCMe₃ in THF to give the cyclopropenecarboxylates II (71% for R = R₁ = Ph). Treatment of I (R = R₁ = H; R = H, R₁ = Me) similarly gave polymers and III.

L5 ANSWER 151 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1976:134752 CAPLUS

DN 84:134752

TI Mass spectrometric investigation of 1,1-difluorocyclopropanes

AU Kamel, M.; Kimpenhaus, W.; Riepe, W.

CS Inst. Spektrochem. Angew. Spektrosk., Dortmund, Fed. Rep. Ger.

SO Organic Mass Spectrometry (1976), 11(1), 79-85

CODEN: ORMSBG; ISSN: 0030-493X

DT Journal

LA German

AB The mass spectra of 13 substituted 1,1-difluorocyclopropanes were obtained and fragmentation patterns determined Trends in fragmentation probabilities were correlated qual. with empirical substitution effects.

L5 ANSWER 152 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1976:120857 CAPLUS

DN 84:120857

TI Cyclopropanes. XXXVIII. Effect of 1-substituents on the stereochemical stability of the cyclopropyl radical

AU Walborsky, H. M.; Collins, P. C.

CS Dep. Chem., Florida State Univ., Tallahassee, FL, USA

SO Journal of Organic Chemistry (1976), 41(6), 940-6

CODEN: JOCEAH; ISSN: 0022-3263

DT Journal

LA English

AB The tert-butyl peresters of chiral 1-X-2,2-diphenylcyclopropanecarboxylic acids (X = F, Cl, OCH₃) were prepared The peresters were decomposed in tetrahydrofuran at 100° to yield, inter alia, 1-X-2,2-diphenylcyclopropane. The stereochem. results showed that the effect of the 1-substituent in stabilizing the σ radical was in the order of F > OCH₃ > Cl. This order follows what would be predicted by the Pauling-Walsh model based on the electronegativity of the substituent.

L5 ANSWER 153 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1975:478664 CAPLUS

DN 83:78664

TI Addition reactions to methylenecyclopropanes. IV. Convenient synthesis of 1,1-dihalospiropentanes

AU Dunkelblum, E.; Singer, B.

CS Dep. Org. Chem., Hebrew Univ., Jerusalem, Israel

SO Synthesis (1975), (5), 323

CODEN: SYNTBF; ISSN: 0039-7881

DT Journal

LA English

GI For diagram(s), see printed CA Issue.

AB Methylenecyclopropanes I (R = H, Me, Ph) reacted with :CX₂ (X = Cl, Br) from excess CHX₃ and 50% NaOH in the presence of PhCH₂NEt₃⁺ Cl⁻ and EtOH to give spiropentanes II in ≤95% yield.

L5 ANSWER 154 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1975:401876 CAPLUS

DN 83:1876
 TI Structure-activity relation of DDT analogs in crayfish giant axons
 AU Wu, Chau H.; Van den Bercken, Jozef; Narahashi, Toshio
 CS Med. Cent., Duke Univ., Durham, NC, USA
 SO Pesticide Biochemistry and Physiology (1975), 5(2), 142-9
 CODEN: PCBPBS; ISSN: 0048-3575
 DT Journal
 LA English
 GI For diagram(s), see printed CA Issue.
 AB The effects of 14 DDT analogs (I analogs) on the resting and action potentials of the crayfish giant axon were investigated using the intracellular microelectrode technique. These analogs can be classified into 3 groups, excitatory, blocking, and dualist. An excitatory analog tends to increase the excitability of the axonal membrane, and has hydrophobic side chains on the para positions whose optimal size equals that of ethoxy group. A blocking analog suppresses the action potential without affecting the resting potential, and has hydrophilic side chains capable of forming hydrogen bonds. A dualist has both excitatory and blocking actions, and the latter may be related to restriction in rotation imposed by the grouping on the benzylic carbon. However, the dividing lines between these categories are not sharp, the compds. tending to fall along a spectrum between pure excitatory and pure blocking activity.

L5 ANSWER 155 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1975:154991 CAPLUS
 DN 82:154991
 TI Nuclear quadrupole resonance and stereochemistry. 4. Chlorocyclopropanes
 AU Delay, F.; Geoffroy, M.; Lucken, E. A. C.; Mueller, P.
 CS Dep. Org. Phys. Chem., Univ. Geneva, Geneva, Switz.
 SO Journal of the Chemical Society, Faraday Transactions 2: Molecular and Chemical Physics (1975), 71(3), 463-7
 CODEN: JCFTBS; ISSN: 0300-9238
 DT Journal
 LA English
 AB The ³⁵Cl NQR frequencies of 22 chlorocyclopropanes showed that a 2-chloro substituent increased one of the ³⁵Cl frequencies of the gem dichloro group by .apprx.0.8 MHz and the other by twice this amount; a further Cl at the 3-position, cis to the 2-Cl substituent, produced addnl. shifts of approx the same sizes. No analogous effect was observed for alkyl groups.

L5 ANSWER 156 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1975:139546 CAPLUS
 DN 82:139546
 TI Structures of 1,1-dichloro-2,2-diphenylcyclopropane and 1,1-dibromo-2,2-diphenylcyclopropane. Substitution effects on cyclopropane geometries
 AU Lauher, Joseph W.; Ibers, James A.
 CS Dep. Chem., Northwest. Univ., Evanston, IL, USA
 SO Journal of the American Chemical Society (1975), 97(3), 561-7
 CODEN: JACSAT; ISSN: 0002-7863
 DT Journal
 LA English
 AB The structures of 1,1-dichloro- and 1,1-dibromo-2,2-diphenylcyclopropane were determined from 3-dimensional x-ray data collected by counter techniques. Both structures have unsym. cyclopropane rings with C-C bond lengths of 1.490 (3), 1.520 (3), and 1.529 (3) Å in the chloro compound and 1.477 (6), 1.508 (6), and 1.509 (6) Å in the bromo compound. In each structure the shortest C-C bond is that across the ring from the point of Ph substitution.

L5 ANSWER 157 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1975:43059 CAPLUS
 DN 82:43059
 TI Aryloxyaliphatic acids and their alkyl esters
 IN Phillips, Donal Kenney
 PA Sterling Drug Inc.
 SO Fr. Demande, 44 pp.
 CODEN: FRXXBL
 DT Patent

LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2197586	A1	19740329	FR 1973-30434	19730822 <--
	FR 2197586	B1	19770909		
PRAI	US 1972-284537	A	19720829		

GI For diagram(s), see printed CA Issue.

AB Thirty-three phenoxyisobutyric acids [I; R = H, Et, Me; R1 = H, Cl; R2, R3 = Cl, Br, F (same or different); R4, R5 = H, Me (same or different); R6 = H, Me, Ph, Et; n = 0, 1] were prepared by different methods and showed effectiveness as anticholesteremics. The cycloaddn. of dihalocarbenes to ethers (II, R7 = alkyl), hydrolysis, and reaction with Me2CO-CHCl3 or BrCMe2CO2Et gave I. An-other preparation was the reaction of dihalocarbenes with (alkenylphenoxy)isobutyric acids (III). II were formed by the dehydration of 2,4-R1[R4CHR5C(OH)R6(CH2)n]C6H3OR7 and the Wittig reaction of 2,4-R1[R6CO(CH2)n]C6H3OR7 with (R4CHR5)P+Ph3 Br-.

L5 ANSWER 158 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1974:520744 CAPLUS

DN 81:120744

TI Carbenes. 7. Intramolecular reactions of vinyl- and allylphosphoryl carbenes

AU Hartmann, A.; Welter, W.; Regitz, M.

CS Fachber. Chem., Univ. Kaiserslautern, Kaiserslautern, Fed. Rep. Ger.

SO Tetrahedron Letters (1974), (20), 1825-8

CODEN: TELEAY; ISSN: 0040-4039

DT Journal

LA German

GI For diagram(s), see printed CA Issue.

AB Irradiation of Me2C:CHC(:N2)P(O)(OMe)2 in C6H6 gave 33% cyclopropene I and 4% Me2C:C:CHP(O)(OMe)2. PhMeC:CHC-(:N2)P(O)(OMe)2 reacted similarly and also gave the indene derivative II. Irradiation of the diazobicyclohexenes III and IV, prepared by cycloaddn. of Ph2C:N2 with cyclopropenes I and V, resp., gave the bicyclobutanes VI and VII, resp.

L5 ANSWER 159 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1974:459297 CAPLUS

DN 81:59297

TI Mode of action of DDT analogs. Molecular orbital studies

AU Holan, G.; Spurling, T. H.

CS Div. Appl. Chem., CSIRO, Melbourne, Australia

SO Experientia (1974), 30(5), 480-1

CODEN: EXPEAM; ISSN: 0014-4754

DT Journal

LA English

AB A relation is given for correlating the insecticidal activity of DDT (I) [50-29-3] analogs with their electronic (mol. orbital) structure. When 5 DDT analogs were tested in a susceptible strain of housefly, insecticidal activity correlated well with the charge distribution of the mol. apex, as determined from mol. orbital calcns. at the CNDO / 2 level. The LD50 of the analogs decreased with the apex charge according to the equation: log LD50 = AΣ qs + C, where A is constant, qs is the charge on the insecticidal atoms, and C is a correlation coefficient equal to 0.998.

L5 ANSWER 160 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1974:133048 CAPLUS

DN 80:133048

TI 2-[(2,2-Dihalocyclopropyl)phenoxy]-2-methylpropionic acids and their esters

IN Phillips, Donald Kenney

PA Sterling Drug Inc.

SO Ger. Offen., 46 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	DE 2343606	A1	19740307	DE 1973-2343606	19730829 <--
	DE 2343606	C2	19830804		
	GB 1385828	A	19750305	GB 1973-38311	19730813 <--
	ZA 7305748	A	19740828	ZA 1973-5748	19730822 <--
	AU 7359488	A1	19750227	AU 1973-59488	19730822 <--
	BE 803924	A1	19740225	BE 1973-1005309	19730823 <--
	AT 7307447	A	19751115	AT 1973-7447	19730827 <--
	AT 331207	B	19760810		
	CH 605584	A	19780929	CH 1976-9598	19730827 <--
	CH 608780	A	19790131	CH 1973-12272	19730827 <--
	ES 418283	A1	19760601	ES 1973-418283	19730828 <--
	DK 141366	B	19800303	DK 1973-4717	19730828 <--
	DK 141366	C	19800901		
	NO 143528	B	19801124	NO 1973-3388	19730828 <--
	NO 143528	C	19810304		
	FI 58629	B	19801128	FI 1973-2675	19730828 <--
	FI 58629	C	19810310		
	SE 417828	B	19810413	SE 1973-11687	19730828 <--
	SE 417828	C	19810730		
	NL 7311903	A	19740304	NL 1973-11903	19730829 <--
	NL 180004	B	19860716		
	NL 180004	C	19861216		
	JP 49056958	A2	19740603	JP 1973-96261	19730829 <--
	JP 58005175	B4	19830129		
	US 3948973	A	19760406	US 1974-443418	19740219 <--
	AT 7504817	A	19760115	AT 1975-4817	19750623 <--
	AT 332372	B	19760927		
	AT 7504818	A	19760115	AT 1975-4818	19750623 <--
	AT 332373	B	19760927		
	JP 58074636	A2	19830506	JP 1982-94645	19820602 <--
	JP 60000335	B4	19850107		
	JP 58083649	A2	19830519	JP 1982-94644	19820602 <--
	JP 60000334	B4	19850107		

PRAI US 1972-284577 A 19720829
 GB 1973-38311 A 19730813
 AT 1973-7447 A 19730827
 CH 1973-12272 A 19730827

GI For diagram(s), see printed CA Issue.

AB About 25 cyclopropyl derivs. (I, x = 2, 3, or 4; n = 0 or 1; Rm = H, 1-Me, 1-Et, 1- or 3-Ph, 1,3-Me2, or 3,3-Me2; R1,R2 = Br, Cl, or F; R3 = H or 3-Cl (in the case of x = 4); R4 = H, Me, or Et; and II) were prepared and useful as anticholesteremics and hypotriglyceridemics in the treatment of arteriosclerosis. Thus, the phenol III (x = 4, n = 0, Rm = 1-Me, R1 = R2 = Cl, R3 = H), CHCl3, and Me2CO were refluxed in the presence of NaOH to give the corresponding acid I (R4 = H). Ph3P+Et Br- was treated successively with NaH in Me2SO and with 4-MeCOC6H4OCMe2CO2Me to give 4-MeCH:CMcC6H4OCMe2CO2Me (IV). IV was treated with CHCl3 in pentane in the presence of Me3COK to give I (x = 4, n = 0, Rm = 1,3-Me2, R2 = R2 = Cl, R3 = H, R4 = Me), which on alkaline hydrolysis gave the corresponding acid.

L5 ANSWER 161 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1974:120354 CAPLUS

DN 80:120354

TI Synthesis and ring cleavage of geminal chlorofluoro- and difluorocyclopropanes

AU Weyerstahl, Peter; Schwartzkopff, Udo; Nerdel, Friedrich

CS Inst. Org. Chem., Tech. Univ., Berlin, Fed. Rep. Ger.

SO Justus Liebig's Annalen der Chemie (1973), (12), 2100-10

CODEN: JLACBF; ISSN: 0075-4617

DT Journal

LA German

GI For diagram(s), see printed CA Issue.

AB Reaction of Me2C:CRR1 (R = Me, Et, or CH:CMc2; R1 = H or Me) with CHClF2 or CHCl2F and ethylene oxide and Et4NBr gave the dihalocyclopropanes I (X, Z = Cl or F) and II (X, Z = Cl or F), CH2:CMcCF:CRR1, ClCH2CH2OCMe2CF:CRR1, and Me2C:CF:CRR1OCH2CH2Cl. Ring cleavage of the initially formed dihalocyclopropanes depends largely on the stability of the intermediate allyl cation.

L5 ANSWER 162 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1974:108027 CAPLUS
 DN 80:108027
 TI Stable 1,1-diiodo- and 1-chloro-1-iodocyclopropane
 AU Mathias, Rolf; Weyerstahl, Peter
 CS Inst. Org. Chem., Tech. Univ. Berlin, Berlin, Fed. Rep. Ger.
 SO Angewandte Chemie (1974), 86(1), 42-3
 CODEN: ANCEAD; ISSN: 0044-8249
 DT Journal
 LA German
 GI For diagram(s), see printed CA Issue.
 AB The halocyclopropanes [I; R = Et, Me3C, Ph, 4-ClC6H4; R1 = H, Me; R2 = H, Ph; R3 = H; or RR3 = (CH2)4; X = Cl, iodo] were prepared, partly as isomeric mixts., by adding NaOH to RR1C:CR2R3 and XCHI2 in CH2Cl2-Et3N+CH2Ph Cl- and heating the mixts. for 3 hr at 50°. The aromatic substituted I (X = iodo) were more stable and obtained in higher yields than the aliphatic substituted I (X = iodo). I (X = Cl) were more stable and obtained in higher yields than I (X = iodo).

L5 ANSWER 163 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1974:107864 CAPLUS
 DN 80:107864
 TI Molecular polarizability. Conformational study of substituted arylcyclopropanes
 AU Aroney, Manuel J.; Calderbank, Kingsley E.; Stootman, Heather J.
 CS Sch. Chem., Univ. Syd., Sydney, Australia
 SO Journal of the Chemical Society, Perkin Transactions 2: Physical Organic Chemistry (1972-1999) (1973), (15), 2060-3
 CODEN: JCPKBH; ISSN: 0300-9580
 DT Journal
 LA English
 AB The dipole moments and molar Kerr consts. of 11 aryl-gem-dihalocyclopropanes were analyzed to deduce preferred solution state conformations.

L5 ANSWER 164 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1973:545603 CAPLUS
 DN 79:145603
 TI Reactivity of unsaturated organophosphorus compounds in the 1,3-dipolar cycloaddition of diaryldiazomethanes
 AU Pudovik, A. N.; Gareev, R. D.; Stabrovskaya, L. A.; Evstaf'ev, G. I.; Remizov, A. B.
 CS Kazan. Gos. Univ. im. Ul'yanova-Lenina, Kazan, USSR
 SO Zhurnal Obshchei Khimii (1973), 43(8), 1674-82
 CODEN: ZOKHA4; ISSN: 0044-460X
 DT Journal
 LA Russian
 AB Kinetic data on the 1,3-dipolar addition of Ph2CN2 to R2P(X)CR1:CH2 [R2 = (MeO)2, (EtO)2, (PrO)2, (ClCH2CH2O)2, (PhO)2, (p-BrC6H4O)2, (p-MeC6H4O)2, (m-MeC6H4O)2, Et2, EtPh, Ph2, OCH2CH2CH2O, (Me2N)2; R1 = H, Me; X = O, S] were determined in polar and nonpolar solvents. The reaction was 1st order in respect to Ph2CN2 and 2nd order overall. The mechanism was a 1-step polycentric type with cyclic electron transfer; the effect of substituents on the rate was correlated with shifts in the NMR and ir spectra of the P compds. The initial products were Δ1-pyrazolines which, depending on the conditions used, either decomposed to cyclopropane derivs. by loss of N2 or isomerized to Δ2-pyrazolines. The effect of solvent polarity on kinetics of the reaction favored a cyclic transition state in which the terminal C atom of the vinyl group was neg. charged while the central C atom of the diazocompd. was neg. charged, i.e., Ph2CN2 acted as an electrophile. Activation energy was 12.5 kcal/mole at 60°; ΔS was -35.2 entropy units.

L5 ANSWER 165 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1973:418790 CAPLUS
 DN 79:18790
 TI Cyclopropanes. XXXIII. Reaction of lithium metal surfaces with optically active 1-halo-1-methyl-2,2-diphenylcyclopropane

AU Walborsky, H. M.; Aronoff, M. S.
CS Dep. Chem., Florida State Univ., Tallahassee, FL, USA
SO Journal of Organometallic Chemistry (1973), 51, 55-75
CODEN: JORCAI; ISSN: 0022-328X
DT Journal
LA English
AB The reaction of Li metal surfaces with optically active 1-halo-1-methyl-2,2-diphenylcyclopropane gave the corresponding Li derivative which is partially racemized. The amount of racemization observed is a function of the halide (I > Br > Cl), the Na content of the Li metal as well as its particle size.

L5 ANSWER 166 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1973:405070 CAPLUS
DN 79:5070
TI Reaction of O,O'-diethyl α -lithiomethyl phosphonate with organic dihalides
AU Oshima, Koichiro; Shirafuji, Tamio; Yamamoto, Hisashi; Nozaki, Hitosi
CS Dep. Ind. Chem., Kyoto Univ., Kyoto, Japan
SO Bulletin of the Chemical Society of Japan (1973), 46(4), 1233-5
CODEN: BCSJA8; ISSN: 0009-2673
DT Journal
LA English
GI For diagram(s), see printed CA Issue.
AB Dibromocyclopropanes I [R = H, R1 = Ph or cyclohexyl; RR1 = (CH₂)_n, n = 4, 6, 10; or RR1 = CH₂CH:CHCH₂] were reduced to the monobromo derivs. (65-82% yield) by treatment with (EtO)₂P(O)CH₂Li (II) at -78° in THF; 1,1-dibromo-2,2-diphenylcyclopropane gave 62% 1,1-diphenylcyclopropane with >6. equivalent II. Dehalogenation of PhCH₂Cl and Ph₂CHCl gave PhCH₂CH₂Ph and Ph₂CHCHPh₂, resp. in the presence of II; PhCH:CHCH₂Cl and trans-PhCH:CHBr underwent deprotonation to PhCH:CH-CH₂CHClCH:CHPh and PhCH:CHC.tplbond.CPh, resp.

L5 ANSWER 167 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1973:159807 CAPLUS
DN 78:159807
TI Synthesis and mass spectral behavior of representative 1,1-dichloro-2-phenylcyclopropanes and 1,1-dichloro-2-ferrocenylcyclopropanes
AU Gokel, George W.; Shepherd, James Peter; Weber, William P.; Boettger, Heinz G.; Holwick, Jann L.; McAdoo, David
CS Dep. Chem., Univ. South. California, Los Angeles, CA, USA
SO Journal of Organic Chemistry (1973), 38(10), 1913-8
CODEN: JOCEAH; ISSN: 0022-3263
DT Journal
LA English
AB Addnl. data considered in abstracting and indexing are available from a source cited in the original document. 1,1-Dichloro-2-ferrocenylcyclopropanes were prepared in good yield by addition of dichlorocarbene to vinylferrocenes under phase transfer catalysis conditions. The mass spectral fragmentation pattern of 1,1-dichloro-2-phenylcyclopropanes and of 1,1-dichloro-2-ferrocenylcyclopropanes are similar.

L5 ANSWER 168 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1973:158769 CAPLUS
DN 78:158769
TI Cyclopropanes. XXXII. Mechanism of Grignard formation
AU Walborsky, H. M.; Aronoff, M. S.
CS Dep. Chem., Florida State Univ., Tallahassee, FL, USA
SO Journal of Organometallic Chemistry (1973), 51, 31-53
CODEN: JORCAI; ISSN: 0022-328X
DT Journal
LA English
AB The radical nature of the Grignard formation reaction is discussed based on product anal. from the reaction of 1-halo 1-methyl-2,2-diphenylcyclopropane with Mg metal in Et₂O-d₁₀ and THF-d₈; the radical intermediates formed largely disproportionate on the surface of the Mg and not in solution The stereochem. is consistent with a surface-radical

mechanism. Neither the particle size nor the purity of the Mg effect the stereochem. of the reaction.

- L5 ANSWER 169 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1973:130294 CAPLUS
DN 78:130294
TI NQR of chlorine in chlorocyclopropanes and effect of conjugation
AU Murin, A. N.; Murin, I. V.; Kazakov, V. P.; Sivkov, V. P.
CS Leningr. Gos. Univ., Leningrad, USSR
SO Zhurnal Strukturnoi Khimii (1973), 14(1), 158-61
CODEN: ZSTKAI; ISSN: 0136-7463
DT Journal
LA Russian
AB The effect of the conjugation of the C-Cl bond in dichlorocyclopropanes was studied by NQR of ³⁵Cl in pure chlorocyclopropane, 2,2-dichloro-1-methylcyclopropane, 7,7-dichloronorcarane, 1,1-dichlorocyclopropane, 2,2-dichloro-1-benzylcyclopropane, 2,2-dichloro-1,1-dimethylcyclopropane, 2,2-dichloro-1-phenylcyclopropane, 2,2-dichloro-1-ethyl-1-phenylpropane, 7,7-dichloro-2-phenylnorcarane, 2,2,2',2'-tetrachlorobicyclopentane, 2,2-dichloro-1,1-diphenylcyclopropane, and pentachlorocyclopropane at 77°K. The higher values of the ³⁵Cl frequencies in the chlorocyclopropanes than in the linear analogs were due to a higher electronegativity of the ring C with respect to Cl than the electronegativity of this C with respect to other C atoms. The NQR method was not convenient for the study of the conjugation effect of the cyclopropane ring with substituents having π -electrons.
- L5 ANSWER 170 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1973:124706 CAPLUS
DN 78:124706
TI Preparation of 1-methyl-2,2-diphenylcyclopropylcobaloxime and theoretical considerations for its mode of formation
AU Jensen, Frederick R.; Buchanan, David H.
CS Dep. Chem., Univ. Calif., Berkeley, CA, USA
SO Journal of the Chemical Society, Chemical Communications (1973), (5), 153-4
CODEN: JCCCAT; ISSN: 0022-4936
DT Journal
LA English
AB Reaction of pyridine [bis(di-methylglyoximate)]cobalt(I) with 1-methyl-2,2-diphenylcyclopropyl bromide gave 60% 1-methyl-2,2-diphenylcyclopropyl-(pyridine)cobaloxime. Five possible mechanisms for the reaction of low-valent metal ions with alkyl halides were proposed.
- L5 ANSWER 171 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1973:72307 CAPLUS
DN 78:72307
TI Cycloaddition of diphenyldiazomethane to allenyl phosphonates
AU Pudovik, A. N.; Khusainova, N. G.; Timoshina, T. V.
CS Kazan. Gos. Univ., Kazan, USSR
SO Zhurnal Obshchei Khimii (1972), 42(10), 2159-62
CODEN: ZOKHA4; ISSN: 0044-460X
DT Journal
LA Russian
GI For diagram(s), see printed CA Issue.
AB (EtO)2P(O)CH:CCH was treated with Ph2CN2 at room temperature to give 37% I; at 75°, 69% II is formed. At room temperature after 20 days (EtO)2P(O)CPh:C:CH2 gave 36% 3-(diethoxyphosphinyl)-2,2,3-triphenyl-1-methylenecyclopropane, also formed at 75° by loss of N.
- L5 ANSWER 172 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1973:57816 CAPLUS
DN 78:57816
TI Reduction of alkyl-, aryl-, and vinyl-gem-dihalocyclopropanes into corresponding cyclopropane hydrocarbons
AU Nefedov, O. M.; Shafran, R. N.; Novitskaya, N. N.
CS Inst. Org. Khim. im. Zelinskogo, Kazan, USSR
SO Zhurnal Organicheskoi Khimii (1972), 8(10), 2075-9
CODEN: ZORKAE; ISSN: 0514-7492

DT Journal
LA Russian
AB Fourteen title gem-dichloro- and -dibromocyclopropanes and 8 gem-dichloro- and dibromonorcaranes were reduced to the corresponding hydrocarbons in $\leq 95\%$ yield by 1-1.2 equivalent of 4-7% Na in liquid NH_3 ; no hydrogenolysis products were observed

L5 ANSWER 173 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1973:54048 CAPLUS
DN 78:54048
TI Compositions for combating insects of the genus *Heliothis*
IN Ludvik, George F.; Darlington, Walter A.
PA Monsanto Co.
SO U.S., 4 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	US 3692915	A	19720919	US 1970-37026	19700513 <--
PRAI	US 1970-37026	A	19700513		
AB	Heliothis zea was controlled by a mixture of 1,1-dichloro-2,2-bis(4'-chlorophenyl)cyclopropane (I) [3575-15-3] and polychlorocamphene. Thus, as shown in caging expts., spraying of cotton with a mixture of 0.05 lb I and 0.125 lb polychlorocamphene/acre induced a 70% mortality of H. zea larvae.				

L5 ANSWER 174 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1973:3850 CAPLUS
DN 78:3850
TI Insecticides. I. Crystal structures of 1,1-bis(p-chlorophenyl)-2,2-dichlorocyclopropane and 1,1-bis(p-ethoxyphenyl)-2,2-dimethylpropane
AU DeLacy, T. P.; Kennard, C. H. L.
CS Dep. Chem., Univ. Queensl., Brisbane, Australia
SO Journal of the Chemical Society, Perkin Transactions 2: Physical Organic Chemistry (1972-1999) (1972), (14), 2141-7
CODEN: JCPKBH; ISSN: 0300-9580
DT Journal
LA English
AB Crystal and mol. structures were determined by x-ray anal. of 1,1-bis(p-chlorophenyl)-2,2-dichlorocyclopropane (I) and 1,1-bis(p-ethoxyphenyl)-2,2-dimethylpropane (II); the structures of I and II were refined to R 0.061 and 0.035 for 2019 and 947 observed independent reflections, resp. Crystals of I were monoclinic, space group P21/a, with a 1735.1, b 1570.1, c 1111.1 pm, β 97.09, and Z = 8; crystals of II were orthorhombic, space group Pca21, with a 2291.2, b 1042.4, c 780.9 pm, and Z = 4. I adopted a butterfly configuration; there was considerable interaction between the cyclopropane and aromatic rings. The structure of II is similar to that of I except that the ethoxy groups lie coplanar to the attached benzene rings and in a nonsym. trans-configuration.

L5 ANSWER 175 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1973:3541 CAPLUS
DN 78:3541
TI Anisotropy of polarizability and spatial structure of phenylcyclopropanes and their analogs
AU Arbuzov, B. A.; Vereshchagin, A. N.; Vul'fson, S. G.; Monetina, L. A.
CS Inst. Org. Fiz. Khim. im. Arbuzova, Kazan, USSR
SO Doklady Akademii Nauk SSSR (1972), 205(5), 1096-9
CODEN: DANKAS; ISSN: 0002-3264
DT Journal
LA Russian
GI For diagram(s), see printed CA Issue.
AB The conformations of phenylcyclopropanes (I; R = H, Me, Ph; R1 = H, Cl, Br) were examined in light of existing dipole moment information and their polarizabilities. The conformational analysis revealed that 1-substituted members in which cis-vicinal effect is not pronounced have as the most stable conformation that with the rotational angle of the Ph group $\Phi =$

90°. For the 1,1-diphenylcyclopropane and its 2-halo analogs the angle presented by the ring planes may be 30° or 38°; in 2,2-dihalo analogs in which the ortho H interference is possible, the rotational angle is close to 90°.

L5 ANSWER 176 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1972:513391 CAPLUS
DN 77:113391
TI Solvolysis of cyclopropyl halides. II. 2-Phenylcyclopropyl bromides
AU Hausser, Jack W.; Grubber, Michael J.
CS Dep. Chem., Duquesne Univ., Pittsburgh, PA, USA
SO Journal of Organic Chemistry (1972), 37(17), 2648-50
CODEN: JOCEAH; ISSN: 0022-3263
DT Journal
LA English
AB 2,2-Diphenylcyclopropyl bromide and cis- and trans-2-phenylcyclopropyl bromide were prepared and solvolyzed in HOAc to give the corresponding ring opened allylic acetate. First order rate consts. and activation parameters were determined. The reaction is considered in terms of the effect of the leaving group on the ring opening process.

L5 ANSWER 177 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1972:495076 CAPLUS
DN 77:95076
TI NQR analysis of the nature of the carbon-chlorine bond in chlorocyclopropanes
AU Murin, A. N.; Murin, I. V.; Kazakov, V. P.; Sivkov, V. P.
CS Leningr. Gos. Univ., Leningrad, USSR
SO Zhurnal Strukturnoi Khimii (1972), 13(3), 531-4
CODEN: ZSTKAI; ISSN: 0136-7463
DT Journal
LA Russian
AB The ³⁵Cl NQR spectra of 12 substituted chlorocyclopropanes were analyzed. The degree of ionic character of the C-Cl bond and effective orbital electronegativity of the C atom bonded to Cl were calculated assuming 21% s-hybridization of Cl.

L5 ANSWER 178 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1972:415570 CAPLUS
DN 77:15570
TI Selected toxicants for control of lice on poultry at Kerrville, Texas, 1961-69
AU Hoffman, R. A.; Hogan, B. F.
CS Entomol. Res. Div., Agric. Res. Serv., Kerrville, TX, USA
SO Journal of Economic Entomology (1972), 65(2), 468-70
CODEN: JEENAI; ISSN: 0022-0493
DT Journal
LA English
AB Out of 65 insecticides tested by a new technique for the control of poultry lice (mixed species, principally Menacanthus stramineus), 15 gave control equal or superior to that of malathion [121-75-5]. Crotoxyphos [7700-17-6], Zectran (I) [315-18-4], and Hooker HRS-1422 (3,5-diisopropylphenyl N-methylcarbamate) [330-64-3] gave the best results.

L5 ANSWER 179 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1972:122911 CAPLUS
DN 76:122911
TI Candidate chlorinated hydrocarbon chemical for resistant Aedes nigromaculis control
AU Kingsford, Elmer; Hazeltine, William
CS Butte Cty. Mosquito Abatement Dist., Oroville, CA, USA
SO Proceedings and Papers of the Annual Conference of the California Mosquito Control Association (1971), 39, 112-13
CODEN: PCCMAN; ISSN: 0091-6501
DT Journal
LA English
AB Monsanto 0412 (1,1-bis(p-chlorophenyl)-2,2-dichlorocyclopropane (I) [3575-15-3] which differed from DDT (II) [50-29-3] at the center of

the mol. where a 3-C ring with 2 Cl atoms was substituted for a 2-C chain with 3 Cl atoms, was approx. 10-fold more active than II against II-resistant *A. nigromaculis*. On *A. vexans* I was equal in toxicity to II, but less active than parathion [56-38-2] or Baytex [55-38-9]. On *Culex pipiens* from a laboratory colony, I was twice as active as II and approx. one-fifth as active as parathion.

L5 ANSWER 180 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1972:85154 CAPLUS
DN 76:85154
TI Transannular neophyl rearrangement
AU Wilt, James W.; Dabek, Rose A.; Welzel, Kippert C.
CS Dep. Chem., Loyola Univ., Chicago, IL, USA
SO Journal of Organic Chemistry (1972), 37(3), 425-30
CODEN: JOCEAH; ISSN: 0022-3263
DT Journal
LA English
AB The radical rearrangement in solution of a phenyl group across a cyclohexane ring via bicyclo[2.2.1]heptyl and bicyclo-[2.2.2]octyl species was achieved. This transannular rearrangement did not occur in analogs via smaller sized bicyclic species. In these cases the parent structures were retained or ring-opening occurred.

L5 ANSWER 181 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1971:551271 CAPLUS
DN 75:151271
TI Stereochemistry of tris(triphenylphosphine)rhodium chloride decarbonylation of aldehydes
AU Walborsky, H. M.; Allen, L. E.
CS Dep. Chem., Florida State Univ., Tallahassee, FL, USA
SO Journal of the American Chemical Society (1971), 93(21), 5465-8
CODEN: JACSAT; ISSN: 0002-7863
DT Journal
LA English
AB A series of aldehydes differing in the hybridization of the carbon atom to which the carbonyl group is attached, i.e., (-)(R)-2-methyl-2-phenylbutanal, (+)(R)-1-methyl-2,2-diphenylcyclopropanecarboxaldehyde, and (E)- α -ethylcinnamaldehyde, was decarbonylated using tris(triphenylphosphine)rhodium chloride. The products, (+)(S)-2-phenylbutane, (+)(S)-1-methyl-2,2-diphenylcyclopropane, and (Z)-1-phenyl-1-butene, were formed with 81, 94, and 100% retention of optical activity, resp. The optical purity in the decarbonylation of a series of 1-substituted cyclopropyl aldehydes varied from 83 to 6%. A cleavage radical pair disproportionation mechanism is proposed for the reaction on the basis of the stereochem. results. The decarbonylation of 1-methyl-2,2-diphenylcyclopropanecarboxaldehyde-d was used to demonstrate the intramol. reaction as well as illustrate its application to the synthesis of specifically D-labeled compds.

L5 ANSWER 182 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1971:540046 CAPLUS
DN 75:140046
TI Cyclopropanes. XXX. Haller-Bauer cleavage of phenyl cyclopropyl ketones
AU Walborsky, Harry M.; Allen, Lewis E.; Traenckner, H. J.; Powers, E. J.
CS Dep. Chem., Florida State Univ., Tallahassee, FL, USA
SO Journal of Organic Chemistry (1971), 36(20), 2937-41
CODEN: JOCEAH; ISSN: 0022-3263
DT Journal
LA English
AB Syntheses and establishment of the ab. configurations of 1-chloro, 1-fluoro, and 1-methoxy-2,2-diphenylcyclopropyl phenyl ketones are described. The optically active ketones were cleaved with NaNH₂ to yield optically active 1-chloro, 1-fluoro, and 1-methoxy-2,2-diphenylcyclopropane, resp.

L5 ANSWER 183 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1971:529714 CAPLUS
DN 75:129714
TI Reaction of ethyl α -fluoroacrylate with aliphatic diazo compounds

AU Kotikyan, Yu. A.; Petrovskii, P. V.; Dyatkin, B. L.; Knunyants, I. L.
 CS USSR
 SO Zhurnal Organicheskoi Khimii (1971), 7(7), 1363-7
 CODEN: ZORKAE; ISSN: 0514-7492
 DT Journal
 LA Russian
 AB The reaction of H₂C:FCO₂Et (I) with CH₂N₂ gave unstable Et 3-fluoro-1-pyrazoline-3-carboxylic acid ester which at room temperature decomposes to Et pyrazole-3-carboxylic acid ester. The reaction of I with N₂CHCO₂Et (II) gave only 1 F-containing compound: FCH₂CO₂Et (resulting from the reaction of II with HF) and di-Et pyrazole-3,5-dicarboxylic acid ester. The reaction of I with II in the presence of Cu powder gave mostly polymers, Et fumarate, Et maleate, and small amount of di-Et 1-fluorocyclopropane-1,2-dicarboxylic acid ester (formed by loss of N and ring contraction of the corresponding pyrazole diester). Similarly, I reacts with 9-diazo fluorene to give 2-fluoro-2-ethylcarboxyspiro[cyclopropane-1,9'-fluorene] and N.

L5 ANSWER 184 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1971:517886 CAPLUS
 DN 75:117886
 TI Conformational effects in compounds with six-membered rings. VIII. Preferred orientations of alkyl groups in allenes and in 2-alkyl-1,3-dioxanes and -dioxolanes
 AU Riddell, F. G.; Robinson, M. J. T.
 CS Robert Robinson Lab., Univ. Liverpool, Liverpool, UK
 SO Tetrahedron (1971), 27(17), 4163-9
 CODEN: TETRAB; ISSN: 0040-4020
 DT Journal
 LA English
 AB The preferred orientations of ethyl and isopropyl groups in 1-alkyl-1,3,3-diphenylallenes and in 2-alkyl-1,3-dioxanes and -dioxolanes were determined from the temperature dependence of the spin-spin coupling consts. for appropriate vicinal protons. In the allenes, a Me group rather than a H atom eclipses a double bond but in the cyclic acetals skew interactions between Me groups and O atoms are minimized in the preferred conformations. The conformational preferences in simple ketones and aldehydes depend primarily on the double bonds rather than on the electronegativity of the O atom of the CO-group.

L5 ANSWER 185 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1971:488692 CAPLUS
 DN 75:88692
 TI Reaction of diphenyldiazomethane with tertiary vinyl- and allylphosphine oxides
 AU Pudovik, A. N.; Gareev, R. D.; Aganov, A. V.; Raevskaya, O. E.; Stabrovskaya, L. A.
 CS Kazan. Gos. Univ., Kazan, USSR
 SO Zhurnal Obshchei Khimii (1971), 41(5), 1008-16
 CODEN: ZOKHA4; ISSN: 0044-460X
 DT Journal
 LA Russian
 GI For diagram(s), see printed CA Issue.
 AB Ph₂CN₂ and Et₂P(O)CH:CH₂ in hot C₆H₆ gave 97% N, and, after treatment with EtOH, some of the oxide was recovered along with 92.5% I (R = R₁ = Et) (Ia). Similarly were prepared I (R = Et, R₁ = Ph) and I (R₁ = R₂ = Ph). Reaction of 1.4 g Et₂P(O)CH:CH₂ with 3 g Ph₂CN₂ in Et₂O-hexane 1 hr at 30° gave 84% II (R = R₁ = Et) (IIa). Similarly prepared II were (R and R₁ given): Bu, Bu; Et, Ph; and Ph, Ph. These with Et₃N in C₆H₆ kept 1 hr isomerized to 90-7% III (R and R₁ given): Et, Et; Bu, Bu; Et, Ph; and Ph, Ph. The isomerization was also carried out with KOH in absolute EtOH, dry HCl in EtOH, or contact with MeCN at room temperature. Pyrolysis of IIa in refluxing C₆H₆ 1 hr gave 98% N and 96% Ia. EtMgBr and I (R = R₁ = Cl) gave 37% Ia. Et₂P(O)CH₂CH:CH₂ and Ph₂CN₂ at 120° gave 56% N and after treatment with EtOH gave benzophenone azine, Ph₂CO, Ph₄C₂H₂, and 5% I (R = R₁ = Ph). Ir spectra of the Δ²-pyrazolines indicated their tendency to associate by H bonding.

L5 ANSWER 186 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1971:141084 CAPLUS
 DN 74:141084
 TI Reactions of olefins with dihalocarbenes
 AU Dehmlow, Eckehard V.; Schoenefeld, Joachim
 CS Org.-Chem. Inst., Tech. Univ. Berlin, Berlin, Fed. Rep. Ger.
 SO Justus Liebig's Annalen der Chemie (1971), 744, 42-50
 CODEN: JLACBF; ISSN: 0075-4617
 DT Journal
 LA German
 GI For diagram(s), see printed CA Issue.
 AB Dichlorocyclopropanes were prepared by reaction of dichlorocarbene generated from CHCl_3 , NaOH, and catalytic $\text{PhCH}_2\text{NET}_3\text{Cl}$ with olefins, e.g. trans- PhCH:CHPh , $\text{Ph}_2\text{C:CH}_2$, PhCH:CH_2 , or PhCH:CHCH:CHPh . Similarly cyclooctatetraene gave 24% 9,9-dichlorobicyclo[6.1.0]nona-2,4,6-triene and 16% bisadduct 5,5,10,10-tetrachlorotricyclo-[7.1.0.04,6]deca-2,7-diene (I). Acetylenes gave only low yields of cyclopropenones. Dibromocarbene reacted similarly but with low yields.

L5 ANSWER 187 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1971:111747 CAPLUS
 DN 74:111747
 TI 1,1-bis(p-nitrophenyl)-2,2-dihalocyclopropane insecticides
 IN Holan, George
 PA Monsanto Chemicals (Australia) Ltd.
 SO U.S., 4 pp. Division of U.S. 3,481,993
 CODEN: USXXAM

DT Patent
 LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3551577	A	19701229	US 1969-810071	19690130 <--
PRAI	US 1969-810071	A	19690130		
AB	Division of U.S. 3,481,993. (CA 72: 66594q). The disclosure is the same, but the claims are different.				

L5 ANSWER 188 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1971:75917 CAPLUS
 DN 74:75917
 TI Cyclopropanes. XXIX. Stereochemistry of the 1-methyl-2,2-diphenylcyclopropyl radical in and out of solvent cage
 AU Walborsky, Harry M.; Chen, Jong-Chen
 CS Dep. Chem., Florida State Univ., Tallahassee, FL, USA
 SO Journal of the American Chemical Society (1971), 93(3), 671-5
 CODEN: JACSAT; ISSN: 0002-7863

DT Journal
 LA English

AB The 1-methyl-2,2-diphenylcyclopropyl radical (I) was generated in solution from from a variety of optically active precursors to yield cyclopropyl derivs. which were largely if not entirely racemized. However, when I disproportionates within the solvent cage, 1-methyl-2,2-diphenylcyclopropane obtained was 31-37% optically pure (66-68% retention of configuration). The disproportionation occurred within a solvent cage.

L5 ANSWER 189 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1971:52932 CAPLUS
 DN 74:52932
 TI Net retention in the reduction of optically active cyclopropyl bromides by di-n-butyltin dihydride. Cage reduction of a rapidly inverting cyclopropyl radical
 AU Altman, Lawrence J.; Erdman, Timothy R.
 CS Dep. Chem., Stanford Univ., Stanford, CA, USA
 SO Tetrahedron Letters (1970), (56), 4891-4
 CODEN: TELEAY; ISSN: 0040-4039

DT Journal
 LA English

AB Cyclopropyl bromides (I) and (II) are treated with Bu_2SnH_2 to give III and IV in a front side cage reduction Free radicals are involved in the reactions, and hexane, hexadecane, and paraffin oil are used as solvents.

Inversion and rotation are faster than reduction at high viscosities.

L5 ANSWER 190 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1971:31578 CAPLUS

DN 74:31578

TI Competitive bicyclobutane and allene formation from phenyl-substituted gem-dibromocyclopropanes

AU Moore, William Robert; Hill, John Benjamin

CS Dep. Chem., Massachusetts Inst. Technol., Cambridge, MA, USA

SO Tetrahedron Letters (1970), (52), 4553-6

CODEN: TELEAY; ISSN: 0040-4039

DT Journal

LA English

GI For diagram(s), see printed CA Issue.

AB Allenes, R3R2C:C:CR1R (I) and bicyclobutanes (II) are prepared by the reaction of III with MeLi. II are obtained only from III (R3 = Me) compds. III (R2 = R3 = Me) give mixts. of I and II. The allene is the only product obtained from III (R = H, R1 = Me, R2 = R3 = Ph).

L5 ANSWER 191 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1970:531061 CAPLUS

DN 73:131061

TI Synthesis and metallation of (+)-(R) and (-)-(S)-1-fluoro-1-methyl-2,2-diphenylcyclopropane

AU Powers, Edward J.

CS Florida State Univ., Tallahassee, FL, USA

SO (1969) 118 pp. Avail.: 70-6301

From: Diss. Abstr. Int. 1970, 30(10), 4568-9

DT Dissertation

LA English

AB Unavailable

L5 ANSWER 192 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1970:477340 CAPLUS

DN 73:77340

TI Reactions of diphenyldiazomethane with derivatives of isopropenylphosphonic acid

AU Pudovik, A. N.; Gareev, R. D.

CS Kazan. Gos. Univ. im. Ul'yanova-Lenina, Kazan, USSR

SO Zhurnal Obshchei Khimii (1970), 40(5), 1025-30

CODEN: ZOKHA4; ISSN: 0044-460X

DT Journal

LA Russian

GI For diagram(s), see printed CA Issue.

AB Adding 4.25 g Ph2CN2 at 75° to 7.8 g (EtO)2P(O)CMe:CH2 over 5 hr gave 94% N, and the residue, treated with EtOH, yielded some unreacted ester and a fraction, b1 162-79°, which with KMnO4 gave 75% I (R = Et), b0.002 158-9°. Similarly were prepared the following analogs: R = Me, 70%, m. 71°, and R = Ph, 90.5%, m. 104-6°. The reaction as above but in the presence of a catalytic amount CuSO4 gave 73% N, while the residue treated with EtOH yielded 46% benzophenonazine, m. 162°, some unreacted ester, and 7.5% BzPh, as well as 3.7% I (R = Et). Ph2C:CH2 (23 g) at 150-70° mixed with 1.7 g (MeO)2P(O)CMeN2 gave 82% N and 46.5% I (R = Me). CH2:CMePOCl2 (10.5 g) and 6.4 g Ph2CN2 mixed over 1.5 hr and held at 45° gave 96% N, some starting material, and a fraction, b0.01 156-7°, which with KMnO4 gave 79% phosphonic dichloride analog of I, b0.005 151-2°, n20D 1.5934. This and PhOH with pyridine gave 41.9% I (R = Ph), identical with the above. (PhO)2P(O)CMe:CH2 and Ph2CN2 in petroleum ether 3 days gave 3-diphenoxyphosphono-3-methyl-5,5-diphenyl-1-pyrazoline, m. 107-8°, which heated to 75° gave N and 92.3% I (R = Ph); also formed by refluxing the pyrazoline in C6H6. Thus diphenylmethylene, a catalytic pyrolysis product of Ph2CN2, in its reaction with (EtO)2P(O)CMe:CH2 displays nucleophilic nature. The normal pyrolytic reaction clearly proceeds via a pyrazoline.

L5 ANSWER 193 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1970:476564 CAPLUS

DN 73:76564

TI Reaction of optically active (1-methyl-2,2-diphenylcyclopropyl)trimethyltin with bromine or iodine
 AU Sisido, Keiiti; Miyanisi, Tokuo; Isida, Tyuzo; Kozima, Sinpei
 CS Dep. Ind. Chem., Kyoto Univ., Kyoto, Japan
 SO Journal of Organometallic Chemistry (1970), 23(1), 117-22
 CODEN: JORCAI; ISSN: 0022-328X
 DT Journal
 LA English
 AB Reaction of an optically active (1-methyl-2,2-diphenylcyclopropyl)trimethyltin (I) with Br (or I) afforded 1-bromo-(or iodo)-1-methyl-2,2-diphenylcyclopropane with a small degree of retention of configuration. This is best interpreted in terms of radical mechanism for the cleavage of the cyclopropyl carbon-tin bond in I by Br or I.

L5 ANSWER 194 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1970:465374 CAPLUS
 DN 73:65374
 TI Insecticides applied as low-volume and conventional sprays to control larvae of the house fly in poultry houses
 AU Bailey, Donald Leroy; LaBrecque, Germain C.; Whitfield, Troy L.
 CS Entomol. Res. Div., Agr. Res. Serv., Gainesville, FL, USA
 SO Journal of Economic Entomology (1970), 63(3), 891-3
 CODEN: JEENAI; ISSN: 0022-0493
 DT Journal
 LA English
 AB Small, compact spraying equipment was developed for applying low-volume and conventional insecticidal sprays by using carbon dioxide (CO₂) as the propellant against larvae of *Musca domestica* (housefly). Field tests were made with various formulations and concns. of 6 insecticides. With conventional sprays applied at 2 g/m², CIBA C-9491, wettable powder suspension, emulsions of dimethoate-dichlorvos mixture and Monsanto CP-51543 were the most effective; control lasted 11 days. Low-volume sprays of dimethoate and formothion at 2 or 4 g/m² controlled the larvae 7 days.

L5 ANSWER 195 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1970:424804 CAPLUS
 DN 73:24804
 TI Absolute configuration of cis-2-phenylcyclopropanecarboxylic acid and related compounds
 AU Aratani, Tadatosi; Nakanisi, Yasuo; Nozaki, Hitosi
 CS Dep. Ind. Chem., Kyoto Univ., Kyoto, Japan
 SO Tetrahedron (1970), 26(7), 1675-84
 CODEN: TETRAB; ISSN: 0040-4020
 DT Journal
 LA English
 AB Decarboxylation of (+)-cis-2-phenylcyclopropane-carboxylic acid (I) with Pb(OAc)₄ in benzene or in the presence of iodine gives (-)-(1R:2R)-trans-1,2-diphenylcyclopropane and (-)-(1R:2S)-trans-2-phenylcyclopropyl iodide, resp. This establishes the absolute configuration of I as 1S:2R. Asym. synthesized (-)-(R)-2-phenylmethylenecyclopropane and (-)-(R)-phenylspiropentane are correlated with I through (+)-(1S:2R)-cis-1-methyl-2-phenylcyclopropane, whose ozonolysis affords (-)-(1R:2S)-cis-2-methylcyclopropanecarboxylic acid. (1S:2S)-trans-2-Phenylcyclopropyllithium adds to benzyne stereospecifically to produce (1S:2S) - trans - 1 - (o - lithiophenyl) - 2 - phenylcyclopropane.

L5 ANSWER 196 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1970:128048 CAPLUS
 DN 72:128048
 TI Cyclopropanes. XXVI. Electrolytic reduction of optically active 1-halo-1-methyl-2,2-diphenylcyclopropanes
 AU Webb, J. L.; Mann, Charles K.; Walborsky, H. M.
 CS Chem. Dep., Florida State Univ., Tallahassee, FL, USA
 SO Journal of the American Chemical Society (1970), 92(7), 2042-51
 CODEN: JACSAT; ISSN: 0002-7863
 DT Journal
 LA English
 OS CASREACT 72:128048
 AB The electrochem. reduction of optically active 1-halo-1-methyl-2,2-

diphenylcyclopropanes was investigated by using cyclic voltammetry, controlled potential electrolysis, and stereochem. techniques. The cyclic voltammetry curves showed 3 well-defined peaks for all halides examined. The nature and significance of these peaks are discussed. The controlled potential electrolyses of the halides at a Hg electrode produced complex current-time relations which are attributed to the formation of organomercurials. Reduction of optically active 1-bromo-1-methyl-2,2-diphenylcyclopropane, 1-iodo-1-methyl-2,2-diphenylcyclopropane, and 1-methyl-2,2-diphenylcyclopropylmercuric bromide lead to 63, 53, and 100% retention of configuration, resp.

L5 ANSWER 197 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1970:66594 CAPLUS

DN 72:66594

TI Insecticidal 1,1-diaryl-2,2-dihalocyclopropanes

IN Holan, George

PA Monsanto Chemicals (Australia) Ltd.

SO U.S., 4 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3481993	A	19691202	US 1967-689317	19671211 <--
PRAI	AU 1966-15134	A	19661212		
GI	For diagram(s), see printed CA Issue.				
AB	The title compds. (I) which are useful insecticides, especially for mosquito larvae specie <i>Aedes aegypti</i> , were prepared. Thus, fuming HNO ₃ (sp. gr. 1.5; 13 ml) was added dropwise to a mixture of 12 ml AcOH and 20 ml Ac ₂ O at <10°; in small portions 11.2 g II (Y ₁ = Y ₂ = Cl) was added with stirring over 1 hr at -5 to +5°; the mixture was quenched in 200 ml ice water to yield 90% 1,1-bis(p-nitrophenyl)-2,2-dichlorocyclopropane, m. 184°. The following I were similarly prepared (Y ₁ and Y ₂ given): Br, Br; Cl, Br; Cl, F; and Cl, Cl.				

L5 ANSWER 198 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1969:523330 CAPLUS

DN 71:123330

TI New inversion in the reduction of optically active cyclopropyl bromides by triphenyltin hydride

AU Altman, Lawrence J.; Nelson, Barbara W.

CS Stanford Univ., Stanford, CA, USA

SO Journal of the American Chemical Society (1969), 91(18), 5163-4

CODEN: JACSAT; ISSN: 0002-7863

DT Journal

LA English

GI For diagram(s), see printed CA Issue.

AB Mechanisms are proposed to explain the net inversion observed in the reduction of optically active I and II with excess Ph₃SnH (reactant, temperature, product, rotation, and % enantiomeric excess are given): (+)-(S)-I, 80°, (+)-(S)-III, 0.37°, 0.29; (+)-(S)-I, 63°, (+)-(S)-III, 1.11°, 0.87; (+)-(S)-I, 60°, (+)-(S)-III, 0.82°, 0.65; (+)-(S)-I, 40°, (+)-(S)-III, 1.75°, 1.38; (-)-(R)-II, 65, (-)-(R)-IV, -4.44°, 2.28.

L5 ANSWER 199 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1969:513049 CAPLUS

DN 71:113049

TI Reactions of diphenyldiazomethane with vinyl- and allylphosphonates

AU Pudovik, A. N.; Gareev, R. D.; Kuznetsova, L. I.

CS Kazan. Gos. Univ., Kazan, USSR

SO Zhurnal Obshchei Khimii (1969), 39(7), 1536-43

CODEN: ZOKHA4; ISSN: 0044-460X

DT Journal

LA Russian

GI For diagram(s), see printed CA Issue.

AB Adding 11.64 g. Ph₂CN₂ to 19.7 g. CH₂:CHP(O)(OEt)₂ at 80° and heating 3-4 hrs. gave 92% N, some 8.8 g. unreacted ester, and 74.6% di-Et

2,2-di-phenylcyclopropylphosphonate (I), m. 58.5°, b0·015 152-70° (crude). Similarly were prepared the following analogs: di-Me, m. 74-5°; di-Pr, b0·002 163-4°, d20 1.1017, n20D 1.5402; and di-Bu, b0·005 180-1°, 1.0771, 1.5313. When the reaction was run in the presence of a catalytic amount CuSO4 for 30 min. following the addition it gave 26.1% benzophenazine, m. 162°, some unreacted vinylphosphonate, about 3.5% Ph2CO, and 24.8% I. Ph2CN2 and CH2:CHCH2P(O)(OEt)2 mixed and heated at 140-50° as above gave 53% N, benzophenazine, (Ph2CH)2, much unreacted ester, 1.1% Ph2CO, and 12.8% di-Et (2,2-diphenyl-cyclopropylmethyl)phosphonate, b0·0007 157-8°, 1.1142, 1.5435. Similar reaction in the presence of CuSO4 run by mixing the reactants over 5 hrs. gave 49.7% N, 50% benzophenazine, 2.5% Ph2CO, and no phosphonate ester with the cyclopropane ring. Ph2CN2 and CH2:CHPOCl2 mixed over 4 hrs. (exotherm) at 30° (cooling) gave 98.5% N, much starting dichloride, and 81.5% 2,2-diphenylcyclopropylphosphonic dichloride, b0·005 146-8°, -, 1.6051. To 13 g. CH2:CHPO(OEt)2 in Et2O was added at 0° 36.7 g. Ph2CN2 in petroleum ether and kept 3 days in the cold to precipitate 72.6% II, m. 101-2°. II and CH2:CHPO(OEt)2 heated 2 hrs. at 80°, then at 180°, gave 97% N and 71.2% I. Thus, formation of I and analogs proceeds not through II but through a diazonium mechanism. A carbene mechanism is excluded, since Ph2CN2 is stable <85°.

L5 ANSWER 200 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1969:438392 CAPLUS
 DN 71:38392
 TI Absolute configuration of cis-2-phenylcyclopropanecarboxylic acid
 AU Aratani, T.; Nakanisi, Y.; Nozaki, Hitosi
 CS Kyoto Univ., Kyoto, Japan
 SO Tetrahedron Letters (1969), (22), 1809-10
 CODEN: TELEAY; ISSN: 0040-4039
 DT Journal
 LA English
 GI For diagram(s), see printed CA Issue.
 AB Trans- and cis-2-phenylcyclopropanecarboxylic acids (Ia, Ib) decarboxylated with Pb(OAc)4 in C6H6 at 80° in the presence of Cu(OAc)2·C5H5N gave 18 and 22% yields of trans-1,2-diphenylcyclopropane (II). Retention of configuration at the Ph-substituted C of Ia was shown: (+)-(1S, 2S)-Ia, [α]20D 376° (c 0.88, CHCl3) gave (+)-(1S,2S)-(II), [α]20D 418° (c 0.96, CHCl3). Similar treatment of partially resolved cis-acid [(+)-Ib] [α]20D 20° (c 1.40, CHCl3) gave the (-)-(1R,2R) isomer of II, [α]20D -266° (c 1.94, CHCl3). It was concluded that (+)-Ib should have the absolute configuration 1S,2R. Ia and Ib treated with Pb(OAc)4 and iodine under irradiation gave 43 and 42% yields of trans-2-phenylcyclopropyl iodide (III), b2 77-8°. Treatment of (+)-(1S,2S)-Ia gave (+)-(1S,2S)-III, [α]20D 188° (c 0.80, CHCl3), metalated with BuLi, carbonated, and esterified to give the Me ester of (+)-Ia, [α]20D 270° (c 1.22, alc.), showing that the Barton reaction proceeds with similar stereochemistry as the phenylation reaction. Since iododecarboxylation of (+)-Ib, [α]20D 16° (c 1.00, CHCl3), gave (-)-(1R,2R)-III, [α]20D -128° (c 2.06, CHCl3), the absolute configuration of (+)-Ib was reconfirmed as 1S,2R.

L5 ANSWER 201 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1969:429812 CAPLUS
 DN 71:29812
 TI Generation and trapping of an optically active free radical in the absence of a cage. The mechanism of dissolving metal reduction of alkyl halides
 AU Jacobus, John; Pensak, David
 CS Princeton Univ., Princeton, NJ, USA
 SO Journal of the Chemical Society [Section] D: Chemical Communications (1969), (8), 400-1
 CODEN: CCJDAO; ISSN: 0577-6171
 DT Journal
 LA English
 OS CASREACT 71:29812
 AB Reduction of optically pure (+)-(S)-1-bromo-1-methyl-2,2-diphenylcyclopropane with Na dihydronaphthylide in dimethoxyethane yields 29% optically pure

(-)-1-methyl-2,2-diphenylcyclopropane with net retention of configuration. It is proposed that this and all dissolving-metal redns. of alkyl halides proceed via an optically active free radical.

L5 ANSWER 202 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1969:412815 CAPLUS
DN 71:12815
TI Diphenyldichlorocyclopropane insecticides
IN Holan, George
PA Monsanto Chemicals (Australia) Ltd.
SO Pat. Specif. (Aust.), 17 pp.
CODEN: ALXXAP
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	AU 283356		19680524	AU	19631024 <--
	US 3642910		19720215	US	19690617 <--
GI	For diagram(s), see printed CA Issue.				
AB	<p>Substituted 1,1-diphenyl-2,2-dichlorocyclopropanes (I) are prepared from the corresponding 1,1-diphenylethylenes (II) by reaction with a CCl_2-generating medium. Thus a solution of 4.4 g. $\text{BrCl}_2\text{CHgPh}$ and 2.5 g. II ($\text{R}_1 = \text{OMe}$, $\text{R}_2 = \text{OEt}$) in 50 ml. benzene was refluxed 10 hrs., filtered, and evaporated to give I ($\text{R}_1 = \text{OMe}$, $\text{R}_2 = \text{OEt}$), m. $114-17^\circ$ almost quant. I ($\text{R}_1 = \text{R}_2 = \text{Me}$), m. 115°, and I ($\text{R}_1 = \text{R}_2 = \text{MeS}$), were similarly prepared. In another reaction, CHCl_3 was slowly added to II ($\text{R}_1 = \text{R}_2 = \text{OMe}$) in methylcyclohexane containing excess tert-BuOK at 0°, and the mixture kept at 20° overnight and worked up to give I ($\text{R}_1 = \text{R}_2 = \text{OMe}$), m. 141°. I ($\text{R}_1 = \text{R}_2 = \text{tolyl}$) was also prepared. These compds. have insecticidal activity but have low toxicity to animals and economic crops. They are active against DDT-resistant insects in many cases. The compds. are best applied as an emulsion formed by addition of an organic solvent solution to H_2O.</p>				

L5 ANSWER 203 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1969:105415 CAPLUS
DN 70:105415
TI Toxicity of DDT and related compounds to certain lepidopteran cotton insects
AU Wolfenbarger, Dan A.; Lowry, William L.
CS Entomol. Res. Div., Agr. Res. Serv., Brownsville, TX, USA
SO Journal of Economic Entomology (1969), 62(2), 432-5
CODEN: JEENAI; ISSN: 0022-0493
DT Journal
LA English
AB Deuterium labeled DDT, applied as a conventional low-volume spray, was the most effective of several diphenyl aliphatics against larvae of the tobacco budworm (*Heliothis virescens*), the bollworm (*H. zea*), and the cabbage looper (*Trichoplusia ni*). In topical applications Dilan (a mixture of 1 part of 1,1-bis(p-chlorophenyl)-2-nitropropane (Prolan) and 2 parts of 1,1-bis(p-chlorophenyl)-2-nitrobutane (Bulan), was the most toxic compound to tobacco budworm larvae, and Prolan applied topically was more toxic than Bulan to bollworm and tobacco budworm larvae. Ultra-low-volume sprays of DDT were more effective than conventional low-volume sprays to pink bollworm (*Pectinophora gossypiella*) adults immediately after application. The LD_{50} value for DDT applied topically to a strain from Ohio was 6.8 mg./g., 34 times that of the laboratory strain.

L5 ANSWER 204 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1969:95732 CAPLUS
DN 70:95732
TI Halocyclopropane insecticides and the mode of action of DDT
AU Holan, George
CS Div. Appl. Chem., C.S.I.R.O., Melbourne, Australia
SO Nature (London, United Kingdom) (1969), 221(5185), 1025-9
CODEN: NATUAS; ISSN: 0028-0836
DT Journal
LA English

AB A steric theory of DDT action led to the design of some new and highly active halocyclopropane insecticides. The new compds. suggest a general van der Waals model for diaryl insecticides and support a theory of insecticide action based on the Na pores of nerve membranes. The following modification of Mullins' (1954, 1956) theory is proposed. Some of the applied insecticide distributes itself at the lipid-protein nerve membrane interface. There, because of its 3-dimensional conformation, the base containing the phenyl rings locks itself into the overlaying protein layer by forming a mol. complex with it. The smaller apex consisting of the cyclopropane ring fits into the channel of a pore in the lipid part of the membrane. While the whole structure is locked in this position, the apex keeps the pore or receptor open to Na⁺, with the consequent delay in the falling phase of the Na⁺ potential. The hydrocarbons can be viewed as "mol. wedges" with very specific solubility, charge, and dimensional requirements.

L5 ANSWER 205 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1969:15824 CAPLUS
DN 70:15824
TI Dihedral angle and bond angle dependence of vicinal proton-fluorine spin-spin coupling
AU Williamson, Kenneth L.; Hsu, Yuan-Fang Li; Hall, Frances H.; Swager, Susan; Coulter, Margaret S.
CS Mount Holyoke Coll., South Hadley, MA, USA
SO Journal of the American Chemical Society (1968), 90(24), 6717-22
CODEN: JACSAT; ISSN: 0002-7863
DT Journal
LA English
OS CASREACT 70:15824
AB From an anal. of the N.M.R. spectra of compds. of fixed and known stereochemistry, the vicinal proton-F coupling constant was found to be a function of dihedral angle; the dependence is like vicinal J_{HH}, a maximum at 0° (.apprx.31 Hz.), a min. at 90° (.apprx.0 Hz.), and a maximum at 180° (.apprx.44 Hz.), and not a linear dependence as has been reported. J_{HF}-vic is extremely dependent on bond angle, being .apprx.31 Hz. for a bond angle near 109° and dropping to 0.9 Hz. for a bond angle near 118° (dihedral angle fixed at 0°). Evidence is presented for a bond length dependence of J_{HF}-vic.

L5 ANSWER 206 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1968:495768 CAPLUS
DN 69:95768
TI Cyclopropanes. XXIV. Sodium-liquid ammonia reduction of optically active cyclopropyl halides
AU Walborsky, Harry M.; Johnson, F. P.; Pierce, J. B.
CS Florida State Univ., Tallahassee, FL, USA
SO Journal of the American Chemical Society (1968), 90(19), 5222-5
CODEN: JACSAT; ISSN: 0002-7863
DT Journal
LA English
AB The reduction of (-)-(R)-1-halo-1-methyl-2,2-diphenylcyclopropane leads to the formation of optically active (+)-(S)-1-methyl-2,2-diphenylcyclopropane (I) with over-all retention of configuration, as well as 2 ring-opened products, 1,1-diphenyl-2-methylpropane and 1,1-diphenylbutane. The amount of optical activity observed in I is dependent on the nature of the starting halogen (Cl > Br > I), the concentration of the Na in liquid NH₃ solution, and a heterogeneity factor.

L5 ANSWER 207 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1968:451154 CAPLUS
DN 69:51154
TI The comparative toxicity of DDT and analogs to susceptible and resistant houseflies and mosquitoes
AU Metcalf, R. L.; Fukuto, T. R.
CS Univ. of California, Riverside, CA, USA
SO Bulletin of the World Health Organization (1968), 38(4), 633-47
CODEN: BWHOA6; ISSN: 0366-4996
DT Journal
LA English

GI For diagram(s), see printed CA Issue.
AB Analogs of DDT were studied for their comparative toxicities to susceptible and insecticide-resistant houseflies (*Musca domestica*) and mosquitoes (*Culex pipiens fatigans* and *Anopheles albimanus*). I (R = OH), b0.4 160°, was prepared by the Grignard reaction between p-ClC₆H₄MgBr and Et pivalate. This was then reacted with PBr₃ and reduced to give I (R = H), b0.2 128°, m. 76-8°. 1,1-Bis(p-chlorophenyl)cyclopropane (m. 100-3°), 1,1-bis(p-chlorophenyl)methylcyclopropane (b0.15 135-8°), and 2,2-bis(p-chlorophenyl)-1,1,1-trifluoroethane were also prepared. In the series of 120 compds., the relative effectiveness against DDT-resistant insects was correlated with the susceptibility of the mols. to attack at the benzylic H by DDTase. Compds. especially effective against the resistant insects were those in which this detoxification mechanism was blocked by o-chlorination, α-fluorination, or by alteration of the aliphatic portion of the mol.

L5 ANSWER 208 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1968:402360 CAPLUS
DN 69:2360

TI Cyclopropanes. XXIII. An optically active cyclopropylsodium
AU Pierce, James B.; Walborsky, H. M.
CS Florida State Univ., Tallahassee, FL, USA
SO Journal of Organic Chemistry (1968), 33(5), 1962-5
CODEN: JOCEAH; ISSN: 0022-3263

DT Journal
LA English

GI For diagram(s), see printed CA Issue.
AB Halogen-metal exchange between (-)-(R)-1-bromo-1-methyl-2,2-diphenylcyclopropane and n-amylsodium yielded upon carbonation (+)-(R)-1-methyl-2,2-diphenylcyclopropanecarboxylic acid (I) (optical purity, 46%), (+)-(S)-1-methyl-2,2-diphenylcyclopropane (II) (optical purity, 83%), and (-)-(R)-n-penty-1-methyl-2,2-diphenylcyclopropane (III) (optical purity, 66%) with over-all retention of configuration. The most effective method for the reduction of a vinylcyclopropane intermediate was by the use of the diimide. 20 references.

L5 ANSWER 209 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1968:90257 CAPLUS
DN 68:90257
TI Catalytic hydrogenation and hydrogenolysis by pentacyanocobaltate(II)
AU Kwiatek, Jack; Seyler, Jay K.
CS U.S. Ind. Chem. Co., Div. of Nat. Distillers, and Chem. Corp., Cincinnati, OH, USA
SO Advances in Chemistry Series (1968), No. 70, 207-32
CODEN: ADCSAJ; ISSN: 0065-2393

DT Journal
LA English

AB Radical intermediates are indicated both in the hydrogenolysis of organic halides and in the hydrogenation of certain activated C-C double bonds catalyzed by Co(CN)₅³⁻. In both cases, formation of the reduced substrate occurs by H transfer from Co(CN)₅H₃³⁻ to the radical. In the absence of excess Co(CN)₅H₃³⁻, the radicals either disproportionate or form stable organocobalt complexes by reaction with Co(CN)₅³⁻. Addition of Co(CN)₅H₃³⁻ to other activated C-C double bonds results in the formation of stable organocobalt complexes, via a nonradial mechanism. Evidence is presented for the formation of N-amidocobalt complexes. RCONHCo(CN)₅³⁻, from certain α-halo and α,β-unsatd. nitriles. The relation of structure to the stability and catalytic activity of organocobalt complexes is discussed. 62 references.

L5 ANSWER 210 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1968:86475 CAPLUS
DN 68:86475
TI Solvolysis of cyclopropyl halides. 2-Phenylcyclopropyl chlorides
AU Hausser, Jack W.; Pinkowski, Norman J.
CS Duquesne Univ., Pittsburgh, PA, USA
SO Journal of the American Chemical Society (1967), 89(26), 6981-4
CODEN: JACSAT; ISSN: 0002-7863

DT Journal
 LA English
 AB cis- and trans-2-Phenylcyclopropyl chloride and 2,2-diphenylcyclopropyl chloride have been solvolized in AcOH. The products of solvolysis in all cases are the corresponding ring-opened allylic acetates. The relative rates at 150° and the activation parameters are presented. These results are considered in terms of the electronic and steric requirements of electrocyclic ring-opening processes. Two alternative interpretations are presented. 19 references.

L5 ANSWER 211 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1968:49141 CAPLUS
 DN 68:49141
 TI Reaction of aryl-substituted ethylenes with dihalocarbenes
 AU Nefedov, O. M.; Shafran, R. N.
 SO Zhurnal Obshchei Khimii (1967), 37(7), 1561-6
 CODEN: ZOKHA4; ISSN: 0044-460X

DT Journal
 LA Russian
 AB Rates of addition of CCl₂ and CBr₂ carbenes to various arylethylenes were reported in reactions of CHCl₃ and CHBr₃ in cyclohexene, arylethylenes, and Me₃COK at -10° to -15° run on a competitive basis. The following relative reaction rates with cyclohexene as the reference substance were observed for indicated arylethylenes: (a) addition of CCl₂: styrene, 1.4; α-methylstyrene, 2.2; Ph₂C:CH₂, 1.8-1.9; p-MeC₆H₄CH:CH₂, 1.5; mixed isomers, 1.5; mixed isomeric vinylxylenes, 1.5; vinylmesitylene 1.4; (b) addition of CBr₂: 0.42; 3.3; 1.1; -; -; -; 0.13, resp. The following products were isolated and tested as herbicides; the most effective was 1,1-diphenyl-2,2-dichlorocyclopropane, which had especially strong activity against kidney bean plants on contact or systemically.
 1-Phenyl-2,2-dichlorocyclopropane, b₁₉ 114.5-15°, n_D 1.5518, d₂₀ 1.2310; 1-phenyl-1-methyl-2,2-dichloro analog, b₁₈ 117-18°, 1.5412, 1.1831; 1,1-diphenyl-2,2-dichloro analog, m. 107-8°;
 1-(p-tolyl)-2,2-dichlorocyclopropane, b₁₃ 121-2°, 1.5454, 1.1868;
 1-tolyl-2,2-dichloro analog mixed isomers b_{6.5} 107.5-8.5°, 1.5470, 1.1919; 1-xylyl-2,2-dichloro analog (mixed isomers), b₇ 108-10°, 1.5470, -; 1-mesityl-2,2-dichloro analog, b_{0.9} 101.5-2°, 1.5476, 1.1611; 1-phenyl-2,2-dibromocyclopropane, b_{2.8} 101.5-2°, 1.5992, 1.7383; 1-phenyl-1-methyl-2,2-dibromo analog, b_{2.8} 105°, 1.5855, 1.6506; 1,1-diphenyl-2,2-dibromo analog, m. 77-8°;
 1-p-tolyl-2,2-dibromo analog, b_{0.9} 100-100.5°, 1.5918, 1.6543.

L5 ANSWER 212 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1967:453734 CAPLUS
 DN 67:53734
 TI Simple preparation of 1,1-dihalocyclopropanes
 AU Weyerstahl, Peter; Klamann, Dieter; Finger, Carl; Nerdel, Friedrich; Buddrus, Joachim
 CS Esso-Forschungslab., Hamburg-Harburg, Fed. Rep. Ger.
 SO Chemische Berichte (1967), 100(6), 1858-69
 CODEN: CHBEAM; ISSN: 0009-2940

DT Journal
 LA German
 GI For diagram(s), see printed CA Issue.
 AB Preparation of 1,1-dihalocyclopropanes (I) from olefins, trihalomethanes, and ethylene oxide in the presence of a quaternary salt catalyst (e.g., Et₄NBr) is described. The reaction proceeded via a transition dichloro-, fluorochloro-, and difluorocarbene.

L5 ANSWER 213 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1967:95170 CAPLUS
 DN 66:95170
 TI Chloroalkyllithium compounds
 PA Borg-Warner Corp.
 SO Neth. Appl., 12 pp.
 CODEN: NAXXAN

DT Patent
 LA Dutch
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	NL 6604777		19661129	NL	<--
	FR 1470982			FR	
	GB 1131860			GB	
	US 3439053		19690415	US	19650528 <--
PRAI	US		19650528		
AB	<p>PhCCl₂Li (I) was prepared by adding 0.043 mole BuLi within 10 min. at -90° to 7.34 g. PhCHCl₂ (or 8.45 g. PhCCl₃) in 100 ml. tetrahydrofuran. After 15 min. the mixture was poured onto solid CO₂. After evaporation of the CO₂, C₆H₆, water, and base were added, and the aqueous phase was separated, acidified, and extracted with Et₂O to give 42% BzCO₂H. When 40 ml. Me₂C:CM₂ was added to I, a deep-red color developed at -65 to -40°, and 48% 1-chloro-1-phenyltetramethylcyclopropane was isolated, m. 65-7° (petroleum ether). With MeI, I reacted to give 77% PhCCl₂Me. Similarly, Cl₃CLi was prepared from CHCl₃ or CCl₄; with CO₂ it gave 76% Cl₃CCO₂H, with cyclohexene 60% 7,7-dichloronorcarane, with Ph₂C:CH₂ 52% 1,1-dichloro-2,2-diphenylcyclopropane, m. 113-14°. Similar reactions of BuLi with Ph₂CCl₂ (producing 40% Ph₂CClLi) and with CH₂Cl₂ (producing 60% Cl₂CHLi) were described.</p>				
L5	ANSWER 214 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN				
AN	1967:95144 CAPLUS				
DN	66:95144				
TI	Optically active organotin compounds. I. Preparation and reaction of (1-methyl-2,2-diphenylcyclopropyl)trimethyltin				
AU	Sisido, Keiiti; Kozima, Sinpei; Takizawa, Koiti				
CS	Univ. Kyoto, Kyoto, Japan				
SO	Tetrahedron Letters (1967), (1), 33-6				
	CODEN: TELEAY; ISSN: 0040-4039				
DT	Journal				
LA	English				
OS	CASREACT 66:95144				
GI	For diagram(s), see printed CA Issue.				
AB	<p>Treatment of (+)-(S)-1-bromo-1-methyl-2,2-diphenylcyclopropane (I), [α]_D¹⁹ 32°, with Me₃SnLi (II) 15 hrs. at 0° in tetrahydrofuran (N atmospheric) and separation of the products by preparative gas chromatog. in He (100 ml./min.) over Thermol-3 at 170° gave 44.1% (+)-(1-methyl-2,2-diphenylcyclopropyl)trimethyltin (III), [α]_D²¹ 11.6° (c 1.45, CHCl₃), n_D²¹ 1.5742; and 37% (-)-(R)-1-methyl-2,2-diphenylcyclopropane (IV), [α]_D²¹ -39.0° (c 1.12, CHCl₃). Retention times for I, III, and IV were 10.5, 26.0, and 5.5 min., resp. Essentially the same reaction was carried out with (-)-(R)-1-bromo-1-methyl-2,2-diphenylcyclopropane to yield 61.2% III, [α]_D²¹ -16.1°, and 17.2% IV, [α]_D²¹ 51.3°. IV had the same absolute configuration and optical purity as I but was not formed by reduction of I by Me₃SnH. The reaction of II with I might produce 1-methyl-2,2-diphenylcyclopropyllithium (V) through a 4-centered transition state (VI). Treatment of (+)-III with concentrated HCl in CCl₄ gave (-)-(R)-IV, [α]_D²³ -39.5° (c 0.53, CHCl₃) with the optical purity and absolute configuration of I, indicating that both the formation of the Sn-C bond from I and the cleavage reaction with HCl proceeded by an ionic mechanism. On account of the large barrier to inversion in these cyclopropane derivs. the Sn-C bond formation would be preceded via S_E1 reaction shown as VII. From this it was concluded that both formation and cleavage proceeded with complete retention and the absolute configuration of III could be decided. Treatment of (+)-III with iodine in CCl₄ gave 11.1% racemic 1-iodo-1-methyl-2,2-diphenylcyclopropane, m. 89°, showing that cleavage proceeded via free radical mechanism. The S_N1 mechanism would not be considerable, since cleavage by HCl proceeded by the ionic route with retention of configuration.</p>				
L5	ANSWER 215 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN				
AN	1967:37234 CAPLUS				
DN	66:37234				
TI	Dihedral angle and bond angle dependence of vicinal proton-fluorine spin-spin coupling				
AU	Williamson, Kenneth Lee; Li, Yuan-Fang; Hall, Frances H.; Swager, Susan				
CS	Mt. Holyoke Coll., South Hadley, MA, USA				

SO Journal of the American Chemical Society (1966), 88(23), 5678-80
 CODEN: JACSAT; ISSN: 0002-7863

DT Journal
 LA English

GI For diagram(s), see printed CA Issue.

AB The conformationally rigid mols. in which the vicinal proton and F atoms are held in fixed and known conformations (I-VI) were synthesized, and vicinal proton-F spin-spin coupling consts. were determined. The dihedral angle dependence of JHF(vic) was similar to that of JHH'(vic), and was not a linear function of the dihedral angle. The vicinal proton-F coupling constant is probably dependent on the electronegativity of adjacent substituents and on the bond length. JHF(vic) in saturated systems is dependent on the angles θ and θ' in a manner predicted by Karplus (CA 59, 14770f) for JHH'. I was prepared by Diels-Alder condensation of CH₂:CHF with hexachlorocyclopentadiene. II was prepared by reaction of anthracene and fluoromaleic anhydride (VII) and was esterified to III. Diels-Alder condensation of VII and furan gave IV, which on hydrolysis gave the exo diacid. V. VI was prepared by addition of fluoro-chlorocarbene to 1,1-diphenylethylene. All the coupling consts. were pos.

L5 ANSWER 216 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1967:18572 CAPLUS
 DN 66:18572
 TI 1,1-Dichloro-2,2-bis(4-chlorophenyl)cyclopropane
 IN Wiles, Robert A.
 PA Allied Chemical Corp.
 SO U.S., 2 pp.
 CODEN: USXXAM

DT Patent
 LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3285811		19661115	US 1965-478009	19650630 <--

AB The title compound (I) was prepared by addition of: CCl₂ to (p-ClC₆H₄)₂C:CH₂ (II). Thus, 27.5 g. II and 70.9 g. bis(2-methoxyethyl) ether was heated under N to 100-5° and 41 g. Cl₃CCO₂Na was added over 0.5 hr. Heating was continued until CO₂ evolution stopped and the mixture cooled and poured into 1 l. H₂O to give an oil which crystallized to give 27% I, m. 129-34° (AcOH). I had insecticidal activity (tests given).

L5 ANSWER 217 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1966:490143 CAPLUS
 DN 65:90143
 OREF 65:16835b-c

TI The stereochemistry of electroreductions. I. Cyclopropyl halides

AU Annino, Raymond; Erickson, Ronald E.; Michalovic, John; McKay, Bruce

CS Canisius Coll. Buffalo, NY

SO Journal of the American Chemical Society (1966), 88(19), 4424-8
 CODEN: JACSAT; ISSN: 0002-7863

DT Journal
 LA English

AB The electrochem. behavior of optically active 1-bromo-2,2-diphenylcyclopropanecarboxylic acid, its Me ester, and 1-bromo-1-methyl-2,2-diphenylcyclopropane-carboxylic acid, its Me ester, and 1-bromo-1-methyl-2,2-diphenylcyclopropane is reported. Reduction of the acid or its Me ester yields products of partially inverted configuration, whereas the redns. of the carboxylate ion and 1-bromo-1-methyl-2,2-diphenylcyclopropane proceed with partial retention of configuration. The stereochem. results correspond closely with those observed in Zn metal redns. of the same compds. They are readily interpreted in terms of a mechanism involving initial attack by the electrode or metal surface on the halogen side of the carbon-halogen bond. 29 references.

L5 ANSWER 218 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1966:411953 CAPLUS
 DN 65:11953
 OREF 65:2152f-g

TI Cyclopropanes. XX. Electrochemical reduction of (+)-S-1-bromo-1-methyl-2,2-diphenylcyclopropane
 AU Mann, C. K.; Webb, J. L.; Walborsky, H. M.
 CS Florida State Univ., Tallahassee
 SO Tetrahedron Letters (1966), (20), 2249-55
 CODEN: TELEAY; ISSN: 0040-4039
 DT Journal
 LA English
 AB cf. CA 64, 633h. The controlled potential electrolysis of (+)-1-bromo-1-methyl-2,2-diphenylcyclopropane (I) (0.003-0.010M in 0.10M [Et₄N]Br in MeCN) using compartmented cells and 3-electrode configurations at -2.7 v. yielded 93% 1-methyl-2,2-diphenyl-cyclopropane (II) with 1.98 ± 0.3 electrons/mol. reacted. (+)-I gave similarly (-)-II, [α]5461 -38.1° (25% optical purity) (63% retention of configuration). (+)-I reduced with Li gave (-)-II with 46% retention of activity and reduced with Mg resulted in 13-18% retention of activity with overall retention of configuration.

L5 ANSWER 219 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1966:3828 CAPLUS
 DN 64:3828
 OREF 64:633h,634a

TI Cyclopropanes. XIX. Reaction of lithium metal with optically active halides
 AU Walborsky, H. M.; Aronoff, M. S.
 CS Florida State Univ., Tallahassee
 SO Journal of Organometallic Chemistry (1965), 4(5), 418-20
 CODEN: JORCAI; ISSN: 0022-328X
 DT Journal
 LA English
 AB cf. CA 62, 7606a. Direct metalation of (+)-(S)-1-bromo-1-methyl-2,2-diphenylcyclopropane with Bu-Li yields the corresponding Li derivative which is partially racemized. The amount of racemization is dependent upon the nature of the halogen substituent and also on the percentage of Na in the Li and the particle size of the Li. With constant Na content and Li particle size the racemization was 64% for I, 58% for Br, and 34% for Cl and with 0.002%, 0.02%, and 1% Na content, carbonation of reaction mixtures yielded 1-methyl-2,2-diphenyl-cyclopropanecarboxylic acid with optical purity of 13%, 16% and 36%, respectively.

L5 ANSWER 220 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1965:472114 CAPLUS
 DN 63:72114
 OREF 63:13301c-e

TI Preparation and chemistry of α -chloroalkyllithium compounds. Their role as carbenoid intermediates
 AU Hoeg, Donald F.; Lusk, Donald I.; Crumbliss, Alvin L.
 CS Borg-Warner Res. Center, Des Plaines, IL
 SO Journal of the American Chemical Society (1965), 87(18), 4147-55
 CODEN: JACSAT; ISSN: 0002-7863
 DT Journal
 LA English
 OS CASREACT 63:72114
 AB The reaction of polychloromethanes with n-butyllithium in tetrahydrofuran at low temperatures (-100°) via α -metalation or halogen-metal interconversion has been used to prepare a new class of organolithium reagents, α -chloroalkyllithium compounds. The procedure was based on our observation of the remarkable stabilizing influence of tetrahydrofuran on α -chloroalkyllithium structures. At low temperatures, these compounds behave as typical organolithium structures and have been characterized by hydrolysis, deuterolysis, and direct carbonation to the corresponding acids (or derivatives). They react (couple) readily with the more reactive alkyl halides, presumably via nucleophilic displacements of the chloro carbanion on carbon. While these compounds were indefinitely stable at -100°, they decomposed spectacularly above -65°, suggestive of carbene formation via elimination of LiCl. If olefins were present during this decomposition (they were added without evidence of reaction at -100°), good yields of the corresponding cyclopropanes were obtained from

α,α -dichlorobenzyl lithium and trichloromethyl lithium. In contraindication of a free carbene mechanism in the formation of the cyclopropanes, however, the stability of α -chloroalkyl lithium compounds appears influenced by the more nucleophilic olefins, suggestive of a direct reaction of the olefin with the organolithium compound (or its structural equivalent), the reactivity (nucleophilic olefin sequence) and specificity in qualitative accord with results previously thought indicative of a free carbene intermediate. Several mechanisms are considered in the light of these results.

L5 ANSWER 221 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1965:454374 CAPLUS

DN 63:54374

OREF 63:9862g-h,9863a

TI Insecticides

PA Monsanto Chemicals (Australia) Ltd.

SO 16 pp.

DT Patent

LA Unavailable

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	NL 6412298		19650426	NL	<--
PRAI	AU		19631024		

GI For diagram(s), see printed CA Issue.

AB Insecticidal 1,1-[bis(4-halophenyl)]-2,2-dichlorocyclopropanes, I, where R and R' are identical or different and designate Cl, Br, or I, prepared by treating the corresponding 1,1-bis(p-substituted phenyl)ethene with phenyl(trichloromethyl)mercury (II) or phenyl(bromodichloromethyl)mercury. Thus, 3.97 g. II, and 1.77 g. 1,1-bis(p-chlorophenyl)-ethene were refluxed in 50 cc. benzene 36 hrs. and filtered to eliminate phenylmercuric chloride. The filtrate was evaporated and the residue recrystd. from petr. ether (b. 40-60°) and MeOH, to give 1.66 g. I, where R and R' are Cl, yield 96.4%, m. 131-2°. Similarly prepared were I, where R and R' are F (m. 114°) and where R and R' are Br (m. 136°). Dispersions of I are used against DDT-resistant insects, especially against *Aedes aegypti*, *Prodenia eridania*, and *Musca domestica*, and have low toxicity against warm blood animals and culture plants.

L5 ANSWER 222 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1964:454453 CAPLUS

DN 61:54453

OREF 61:9384a-b

TI Cyclopropanes. XVI. Optically active Grignard reagent and the mechanism of Grignard formation

AU Walborsky, H. M.; Young, A. E.

SO Journal of the American Chemical Society (1964), 86(16), 3288-96

CODEN: JACSAT; ISSN: 0002-7863

DT Journal

LA Unavailable

AB The reaction of (+)-(S)-1-brom-1-methyl-2,2-diphenylcyclopropane with Mg leads to the formation of an optically active Grignard reagent since on carbonation (-)-(S)-1-methyl-2,2-diphenylcyclopropanecarboxylic acid (12 \pm 2% optical purity) and (-)-(R)-1-methyl-2,2-diphenylcyclopropane (10 \pm 2% optical purity) are isolated. Evidence is presented to show that the extensive racemization observed in the products occurs in the Grignard formation step and not after the Grignard reagent is formed. A mechanism for Grignard formation, which is consistent with the stereochem. observations, is suggested.

L5 ANSWER 223 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1964:454452 CAPLUS

DN 61:54452

OREF 61:9383h,9384a

TI Cyclopropanes. XV. The optical stability of 1-methyl-2,2-diphenylcyclopropyl lithium

AU Walborsky, H. M.; Impastato, F. J.; Young, A. E.

CS Florida State Univ., Tallahassee

SO Journal of the American Chemical Society (1964), 86(16), 3283-8
 CODEN: JACSAT; ISSN: 0002-7863

DT Journal

LA Unavailable

AB cf. CA 61, 6898c. Halogen-Li interchange between (+)-(S)-1-bromo-1-methyl-2,2-diphenylcyclopropane and BuLi produced 1-methyl-2,2-diphenylcyclopropyllithium which on treatment with CO₂, Br, and I yielded products in which the configuration as well as the optical activity had been completely retained. No effect on the optical results could be found on varying the temperature, solvent, or reaction time. The Li derivative was found to react with solvent in the order 1,2-dimethoxyethane < tetrahydrofuran < Et₂O.

L5 ANSWER 224 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1964:2795 CAPLUS

DN 60:2795

OREF 60:417d-h,418a-h

TI Synthesis of allenes from 1,1-dihalocyclopropane derivatives and alkylolithium

AU Skatteboel, Lars

CS Univ. Carbide European Res. Assoc., Brussels, Belg.

SO Acta Chemica Scandinavica (1963), 17(6), 1683-93
 CODEN: ACHSE7; ISSN: 0904-213X

DT Journal

LA English

AB 1,1-Dibromocyclopropane derivs. reacted with BuLi or MeLi to give allenes in good yields. The dichloro analogs reacted similarly with BuLi, but not with MeLi under the same conditions. The mechanism of the reaction was discussed. In some cases, where the product consisted of a mixture of isomers, this was explained by assuming a carbene intermediate in the reaction. (All reactions were carried out under N; anal. gas chromatograms were determined on an 8.5-ft. column of squalane on chromosorb W, unless otherwise stated, with He as carrier gas; preparative scale gas chromatographic sepns. were carried out on a column of Apiezon J on firebrick with N or He as carrier gas; ultraviolet spectra were determined in hexane, unless otherwise stated). 1,1-Dihalocyclopropanes were prepared by the method of Doering and Hoffmann (CA 49, 15805b); equimolar amts. of olefin and haloform were generally used. Haloform added slowly during 6-8 hrs. to a stirred slurry of tert-BuOK, the olefin, and dry pentane (50-100 ml./mole olefin) at -10° to 0°, the mixture stirred overnight at room temperature and treated with H₂O, and the product extracted with Et₂O gave the following cyclopropane derivs. (compound, b.p./mm., m.p., n_D/temperature, % yield given): 1,1-dibromo-2,2-dimethylcyclopropane (I), 51-2°/16, -, 1.5156/20°, 80; 1,1-dibromo-2,2,3-trimethylcyclopropane (II), 65-74°/18, -, 1.5130, 27°, 84; 1,1-dichloro-2,2,3-trimethylcyclopropane, 63°/45, -, 1.4545/28°, 70; 1,1-dibromo-2,2,3,3-tetramethylcyclopropane (III), -, 81°, -, 80; 1,1-dichloro-2,2,3,3-tetramethylcyclopropane (IV), -, 52°, -, 78; 1,1-dibromo-2-hexylcyclopropane (V), 70°/0.1, -, 1.4940/23°, 44; 1,1-dichloro-2-hexylcyclopropane, 85°/11, -, 1.4515/24°, 15 (low yield partly due to accidental loss of product); 7,7-dibromobicyclo [4.1.0] heptane, 110°/12, -, 1.5577/22° 73; 8,8-dibromobicyclo [5.1.0] octane, 60-1° /0.1, -, 1.5521/23°, 58; 9,9-dibromobicyclo [6.1.0] nonane (VI), 80-2°/0.1, -, 1.5520/20°, 65; 1,1-dibromo-2-diphenylcyclopropane (VII), 90-1°/0.1, -, 1.6001/22°, 37; 1,1-dibromo-2,2-diphenylcyclopropane (VIII), -, 154-6°, -, 54; 1,1-dichloro-2,2-diphenylcyclopropane, -, 115-16° -, 60; 1,1-dibromo-2-methyl-2-(ethoxymethyl)cyclopropane (IX), 52-3°/2, -, 1.5024/26°, 58. A mixture of tert-BuOK (from 23 g. K), 27 g. 1,5-cyclooctadiene, and 100 ml. dry pentane cooled in an ice-salt bath treated dropwise during 7 hrs. with 127 g. CHBr₃ with stirring, kept overnight at room temperature, and treated with H₂O, the precipitate filtered off, washed with a little Et₂O, the aqueous phase extracted with Et₂O, and the exts. washed with H₂O until neutral, dried, and fractionated gave 21 g. 9,9-dibromobicyclo [6.1.0] non-4-ene (X), b_{0.3} 86°, n_D 1.5727; the crystalline distillation residue combined with the above precipitate and recrystd. from CH₂Cl₂ gave 38 g. 5,5,10,10-tetrabromotricyclo [7.1.0.0.4.6] decane (XI), m. 174-80°. A mixture of tert-BuOK (from 13 g. K), 17.5 g.

1,8-cyclotetradecadiene, and 60 ml. pentane cooled in an ice-salt bath treated dropwise with stirring during 5 hrs. with 46.5 g. CHBr_3 and kept overnight at room temperature, H_2O added, and the precipitate filtered off, washed with a little Et_2O , and recrystd from CH_2Cl_2 gave 10.4 g. 8,8,16,16-tetrabromotricyclo[13.1.0.07.9]hexadecane (XII), m. $200-4^\circ$.

General procedure. 1,1-Dibromo- or 1,1-dichlorocyclopropane derivative (0.1 mole) diluted with 25 ml. dry Et_2O , cooled to -40 to -30° in a dry ice- Me_2CO bath, treated dropwise with stirring during 30 min. with 0.12 mole alkylolithium in Et_2O , and stirred 30 min., H_2O added, the Et_2O layer separated, the aqueous layer extracted with a small amount Et_2O , and the combined organic solns. washed with H_2O until neutral, dried, and fractionated through a 25-cm. column packed with Dixon rings or a 100-cm. spinning-band column gave the allene; practically similar results were obtained on a larger or smaller scale. From I and MeLi was prepared $\text{H}_2\text{C}:\text{C}:\text{CMe}_2$, 92% yield estimated by gas chromatography (GC); a sample obtained by preparative GC b. 40° , $n_{\text{D}}^{24} 1.4152$, ν 1930 and 845 cm^{-1} . From II and MeLi was prepared 69% $\text{Me}_2\text{C}:\text{C}:\text{CHMe}$, b. 72° , $n_{\text{D}}^{25} 1.4340$, 99% purity (by GC), ν 1965 cm^{-1} ; with BuLi was obtained 68% of the allene. V and MeLi gave 89% $\text{H}_2\text{C}:\text{C}:\text{CHCH}_2\text{Am}$, b₁₅, 45° , $n_{\text{D}}^{23} 1.4432$, ν 1950 and 842 cm^{-1} , containing 3% impurities (by GC). IX and MeLi gave 71% $\text{EtOCH}_2\text{CMe}:\text{C}:\text{CH}_2$, b. 112° , $n_{\text{D}}^{21} 1.4260$, ν 1955, 870, and 850 cm^{-1} , at least 99% purity by GC on dinonyl phthalate on Embacel. VII and MeLi at -60° gave 82% $\text{PhCH}:\text{C}:\text{CH}_2$, b₁₁ $64-5^\circ$, $n_{\text{D}}^{24} 1.5809$, λ (EtOH) 284 μ (ϵ 16,300), ν 1940 and 860 cm^{-1} , at least 99% purity by GC; rapidly oxidized in air, fairly stable (70% recovery) when stored over hydroquinone at 0° for over a year. VIII and MeLi gave 43% $\text{Ph}_2\text{C}:\text{C}:\text{CH}_2$, b_{0.01} 80° , $n_{\text{D}}^{20} 1.6301$, ν 1940 and 855 cm^{-1} , probably containing $\text{Ph}_2\text{CHC}:\text{CH}$ (weak band at 3300 cm^{-1}); the distillation residue dissolved in C_6H_6 and the solution diluted with petr. ether gave an unidentified compound, $\text{C}_{45}\text{H}_{36}$, m. $192-3^\circ$, mol. weight 559. VI and MeLi gave 93% 1,2-cyclononadiene, b₁₆ $62-3^\circ$, $n_{\text{D}}^{20} 1.5060$, at least 99% purity by GC, which (1 g.) was ozonized in EtOAc and then oxidized with AeO_2H to give 0.35 g. suberic acid, m. $138-40^\circ$. X and MeLi gave 80% 1,2,6-cyclononatriene, unstable, b₁₃ $61-2^\circ$, $n_{\text{D}}^{24} 1.5218$, whose infrared (IR) spectrum was recorded, which (1 g.) was ozonized in EtOAc at 0° followed by oxidin. with AcO_2H to give 0.3 g. succinic acid. XI (22.6 g.) in 25 ml. dry Et_2O treated dropwise at -40° during 30 min. with 80 ml. 1.5M $\text{Et}_2\text{O}-\text{MeLi}$ with stirring and stirred 30 min., H_2O added, the Et_2O layer separated from insol. matter, washed neutral with H_2O , dried, and evaporated in vacuo, the residue extracted with pentane (considerable undissolved residue remained), the extract evaporated in vacuo, the residue distilled at 80° (bath)/0.05 mm., into a cooled receiver, and the partly crystalline distillate recrystd. from a little pentane gave 800 mg. 1,2,6,7-cyclodecatetraene, m. 36° , mol. weight (mass spectrometry) 132, whose IR spectrum was recorded. XII (7.7 g.) suspended in 10 ml. dry Et_2O treated dropwise during 30 min. with 30 ml. 1.15M $\text{Et}_2\text{O}-\text{MeLi}$ at -40° with stirring, stirred 1 hr. while the bath temperature rose to 0° , H_2O added, and the Et_2O phase separated, washed neutral with H_2O , dried, and evaporated in vacuo gave 1.6 g. 1,2,9,10-cyclohexadecatetraene, m. 80° (EtOH, then pentane), whose IR spectrum was recorded. III (25.6 g.) suspended in 50 ml. dry Et_2O treated dropwise at -40° during 1 hr. with 80 ml. 1.5M $\text{Et}_2\text{O}-\text{MeLi}$ with stirring, stirred 30 min., H_2O added, the Et_2O phase separated, the aqueous phase extracted with a little Et_2O , and the combined organic solns. washed neutral with H_2O , dried, and fractionated gave 6.7 g. liquid, b. $83-5^\circ$, $n_{\text{D}}^{20} 1.4253$, consisting of 3 compds. by GC. The main component, which represented about 95% of the total mixture, was purified by preparative GC to give 1-methyl-1-isopropenylcyclopropane (XIII), b. 84° , $n_{\text{D}}^{25} 1.4223$, ν 3080, 1650, 1022, 892 cm^{-1} , its nuclear magnetic resonance spectrum showing 5 bands with relative peak areas 2:3:3:2:2 with $\tau = 5.30$ (multiplet) ($\text{H}_2\text{C}:\text{C}$), 8.37 (quadruplet) ($\text{C}:\text{CMe}$), 8.88 (singlet) (Me on cyclopropane), and 9.40 and 9.62 (multiplets) (cyclopropane CH_2); identical (IR spectrum) with synthetic XI (see below). Ozonolysis of XIII gave HCHO , characterized as the 2,4-dinitrophenylhydrazine (DPH) derivative, and ketone $\text{C}_6\text{H}_{10}\text{O}$, characterized as the DPH derivative, m. $164-8^\circ$. Variation of the reaction temperature between -78° and 0° or use of dioxane, tetrahydrofuran, diglyme, or C_6H_6 as solvent for III gave XIII as practically the sole product. The same result was obtained with IV and BuLi . Also IV and BuLi yielded practically only XIII. Zn-Cu couple

(prepared from 42 g. Zn), 134 g. CH₂I₂, 300 mg. iodine, and 400 ml. dry Et₂O refluxed 30 min., treated dropwise during 0.75 hr. with 77 g. H₂C:CMcMe:CH₂, refluxed 62 hrs., and filtered, and the filtrate washed with dilute HCl and aqueous NaHCO₃, dried, and fractionated gave 9.8 g. 60:40 mixture of 2 compds., b. 85-92°, n_D²⁰ 1.4245, which were separated by preparative GC to give (as the main product) XIII, b. 84°, n_D²⁵ 1.4223; the other component was probably 1,1'-dimethylbicyclopropyl, n_D²⁵ 1.4228, ν 3020 and 1012 cm.⁻¹

L5 ANSWER 225 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1963:447960 CAPLUS

DN 59:47960

OREF 59:8614b-d

TI Reactions related to the addition of dichlorocarbene to norbornylene

AU Bergman, Elliot

CS Shell Develop. Co., Emeryville, CA

SO Journal of Organic Chemistry (1963), 28(9), 2210-15

CODEN: JOCEAH; ISSN: 0022-3263

DT Journal

LA Unavailable

GI For diagram(s), see printed CA Issue.

AB Addition of di-chlorocarbene to norbornylene at 0° gave a C₈H₁₀Cl₂ product isomeric with the expected dichlorocyclopropane derivative. The isomer was shown to be 3,4-dichlorobicyclo[3.2.1]oct-2-ene (I). Similarly, cyclopentene gave a 40% yield of a 1:1 mixture of the normal product, 6,6-dichlorobicyclo[3.1.0]hexane (II) and its isomer, 2,3-dichlorocyclohexene. The latter was shown to arise from the former during work-up. Addition of dichlorocarbene to cyclohexene and cycloheptene gave only normal (dichlorocyclopropane) products. The order of stability of the adducts described is consistent with strain being the controlling factor. A stable purple carbonium ion was formed by treatment of either dichlorocarbene adduct of cyclopentene with strong Lewis acids. Similarly were prepared other cyclo and bicyclo analogs.

L5 ANSWER 226 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1963:419276 CAPLUS

DN 59:19276

OREF 59:3449d-e

TI Pure nuclear quadrupole resonances of several chlorinated cyclopropanes

AU Todd, J. E.; Whitehead, M. A.; Weber, K. E.

CS Univ. of Cincinnati, Cincinnati, OH

SO Journal of Chemical Physics (1963), 39(2), 404-9

CODEN: JCPSA6; ISSN: 0021-9606

DT Journal

LA Unavailable

AB The nuclear quadrupole resonances of 5 chlorinated cyclopropanes are given, and the Cl frequencies are correlated with the effective orbital electronegativity of the C to which the Cl is bonded. The concept of mol. inequivalence of the Cl atoms is introduced in the interpretation of the temperature dependence of the frequencies in 2,2,2',2'-tetrachlorobicyclopropane.

L5 ANSWER 227 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1963:39664 CAPLUS

DN 58:39664

OREF 58:6701h,6702h,6703a-b

TI Cyclopropyl carbanion

AU Walborsky, H. M.

CS Fla. State Univ., Tallahassee

SO Record Chem. Progr. (Kresge-Hooker Sci. Lib.) (1962), 23(No. 2), 75-91

DT Journal

LA Unavailable

GI For diagram(s), see printed CA Issue.

AB Deuterium exchange of 2,2-diphenylcyclopropyl cyanide (I) in methanol-d had a half-life of 8 min., while the racemization of I had a half-life of 540 hrs. A barrier to inversion of I was inferred. 1-Bromo-1-methyl-2,2-diphenylcyclopropane (II), $[\alpha]$ -109°, with Na in refluxing PhMe gave 1-methyl-2,2-diphenylcyclopropane, $[\alpha]$ +89°, 30%

racemized, indicating major retention with some loss from the radical intermediate stage. II with Mg in tetrahydrofuran, yielded by carbonation 2,2-diphenyl-1-methylcyclopropanecarboxylic acid (III) with 12% optical purity. The same Grignard from II, BuLi, and Me₂Mg.MgBr₂, on treatment with 1,2-dimethoxyethane and CO₂ gave III with complete retention of optical activity. The results were consistent with a radical mechanism of halide reaction with Mg. A review with 38 references was included.

L5 ANSWER 228 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1961:137111 CAPLUS

DN 55:137111

OREF 55:25785e-h

TI Cyclopropanes. IX. The relative and absolute configurations of 1-substituted 2,2-diphenylcyclopropanecarboxylic acids

AU Walborsky, H. M.; Barash, L.; Young, A. E.; Impastato, F. J.

CS Florida State Univ., Tallahassee

SO Journal of the American Chemical Society (1961), 83, 2517-25

CODEN: JACSAT; ISSN: 0002-7863

DT Journal

LA Unavailable

OS CASREACT 55:137111

AB cf. CA 55, 22231d. Each of the acids, 2,2-diphenylcyclopropanecarboxylic acid (I), 1-methyl-2,2-diphenylcyclopropanecarboxylic acid (II), and 1-bromo-2,2-diphenylcyclopropanecarboxylic acid (III), formed a racemic compound. Their order of stability according to thermal analysis and the Petterson scale was I » III > II. Thermal analyses revealed that (+)-II and (-)-III formed a quasi-racemic compound, that (+)-II and (+)-III yielded a solid solution, and no conclusive information on the mixts. of I and II, which was probably due to the unfavorable steric relationship of the two acids. Thermal analyses, x-ray powder diffraction patterns, and infrared analyses indicated that (-)-I and (+)-II, and (+)-II and (+)-III were configurationally related. Rotary dispersion curves of the resp. aldehydes of I, II, and III exhibited Cotton effects and further confirmed the related configurations. Tentative absolute configurations were assigned to (-)-I (S), (+)-II (S) and (+)-III (R) on the basis of the Prelog-Cram model and the known absolute configuration of (-)-menthol. A polymer configuration for the enantiomers and a dimer configuration for the racemates were suggested from an interpretation of the infrared spectra of these compds.

L5 ANSWER 229 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1960:128371 CAPLUS

DN 54:128371

OREF 54:24468h-i,24469a-b

TI Relation between chemical structure and insecticidal activity in chlorocyclopropane derivatives

AU Komrsova, H.; Farkas, J.

CS Ceskoslov. akad. ved, Prague

SO Collection of Czechoslovak Chemical Communications (1960), 25, 1977-80

CODEN: CCCCAK; ISSN: 0010-0765

DT Journal

LA German

GI For diagram(s), see printed CA Issue.

AB Adding portionwise, with intensive agitation and exclusion of moisture in 1 hr. at -40°, 5 g. freshly prepared KOCMe₃ to 2.95 g. p-MeOC₆H₄CH:CM₂, 10 ml. CHCl₃, and 100 ml. petr. ether (b.p. 30-5°), stirring the mixture 3 hrs. (without cooling), washing with H₂O to disappearance of the alkaline reaction, drying (Na₂SO₄), and evaporating gave 4 g. p-MeOC₆H₄-CH.CCl₂.CM₂, m. 58-9° (n-hexane). Similarly, (p-ClC₆H₄)₂C:CH₂, PhCH:CH₂, trans-PhCH:CHMe, cis-PhCH:CHMe, PhCH:CM₂, p-MeC₆H₄CH:CM₂, p-ClC₆H₄CH:CM₂, p-ClC₆H₄OCH:CH₂ (I), cyclopentadiene (II) (m. 32°), and (Me₂C:CH)₂ gave with CCl₂ (dichlorocarbene) the corresponding dichlorocyclopropane derivs. [b.p. and (or) m.p. (petr. ether) given]: m. 132-3°; b₁₅ 140°; b₁₅ 140°; b₁₅ 140°; m. 33-4° and b₈ 118-20°; m. 62°; m. 62-3°; m. 5° and b₁₅ 150°; b₁₅ 150°; m. 78° and b₁₅ 150°. II added 1 equivalent CCl₂ only. Addition of CCl₂ failed with cis- and trans-stilbene, trans,trans-(PhCH:CH)₂, and

PhCH:CHCO₂Et. Cyclopropane derivs. prepared from I and II showed insecticidal activity on the house fly (L.D.50 0.3 and 0.9 γ , resp.).

L5 ANSWER 230 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1960:80425 CAPLUS

DN 54:80425

OREF 54:15267a-d

TI Cyclopropanes. VI. Retention of optical activity and configuration in the cyclopropyl carbanion

AU Walborsky, H. M.; Impastato, F. J.

CS Florida State Univ., Tallahassee

SO Journal of the American Chemical Society (1959), 81, 5835-6

CODEN: JACSAT; ISSN: 0002-7863

DT Journal

LA Unavailable

AB cf. CA 53, 13100b. The determination of the effect of delocalization of the neg. charge on racemization of optically active compds. was attempted.

CH₂:CBrCO₂Me with Ph₂CN₂ in the presence of alkali yielded

1-bromo-2,2-diphenylcyclopropanecarboxylic acid (I), m. 190-1°,

which was resolved via the brucine salt to yield (+)-I, [α]_{26D}

111° (c 0.467) (all rotations in CHCl₃). (+)-I with LiAlH₄ yielded

1-bromo-2,2-diphenylcyclopropanecarbinol (II), m. 133-4°, [α]

109° (c 0.519). The tosylate of II (not isolated) with LiAlH₄

yielded 1-bromo-1-methyl-2,2-diphenylcyclopropane (III), m. 84-5°

[α] 106° (c 0.863). III (1.7 g.) in 50 ml. 1:1 C₆H₆-petr.

ether cooled to 5°, treated during 20 min. with 0.05 mole BuLi in

50 ml. Et₂O (temperature held below 6°), the mixture stirred 15 min. at

6°, and decomposed with MeOH yielded 0.342 g. 1-methyl-2,2-

diphenylcyclopropane (IV), [α]_{26D} 78 \pm 1° (c 1.152). The

rotation of -78° corresponded to an optical purity of 80.5% or to

60% retention and 40% racemization. (-)-2,2-Diphenylcyclopropanecarboxyli

c acid (V) was configurationally related to (+)-1-methyl-2,2-

diphenylcyclopropanecarboxylic acid (VI) and (-)-V was related to (-)-IV.

By the use of the Fredga quasi-racemate technique, (+)-VI was shown to

have the same configuration as (+)-I. It therefore followed that the

conversion of III to IV proceeded with over-all retention of configuration

and there was retention of configuration in the cyclopropyl anion (60% at

6°).

L5 ANSWER 231 OF 231 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1957:12597 CAPLUS

DN 51:12597

OREF 51:2616a-f

TI Reactions of bivalent carbon compounds. Reactivities in olefin-dibromocarbene reactions

AU Skell, Philip S.; Garner, Albert Y.

CS Pennsylvania State Univ., University Park

SO Journal of the American Chemical Society (1956), 78, 5430-3

CODEN: JACSAT; ISSN: 0002-7863

DT Journal

LA Unavailable

AB cf. C.A. 50, 14567e. Equimolar amts. of the appropriate olefin and CHBr₃ in Me₃COH treated at 0-3° with excess Me₃COK at the rate of approx.

50 millimoles/hr., the mixture stirred 1 hr., and diluted with pentane and H₂O, and the organic layer washed, dried, and evaporated gave the corresponding substituted 1,1-dibromocyclopropane derivs. (substituents, b.p./mm.,

n_D_{25.0}, % yield, and starting olefin given): 2-PhCH₂, 104-6°/1,

1.5801, 13.3, PhCH₂CH:CH₂ (I); 2-Bu, 120-2°/58, 1.4905, 14.0,

1-hexene (II); 2,2-Me₂, 65-6°/27, 1.5110, 65.1, Me₂C:CH₂ (III);

2,2-Ph₂, -, - (m. 150-1°), 66.2, Ph₂C:CH₂ (IV); 2-(p-MeOC₆H₄),

3-Me(trans-), - (decomposition 155°), -, about 46.9, anethole (V); 2-Ph,

94°/2, 1.5963, 36.5, styrene (VI); 2,2,3,3-Me₄, 93-4°/22,

-(m. 77-8°), 54.0, (Me₂C:)₂ (VII); 2,2,3-Me₃, 83°/24,

1.6134, 66.0, Me₂C:CHMe (VIII); 2-CH₂:CH, 70°/26, 1.5412, 72.0,

(CH:CH₂)₂ (IX). Also prepared were (same data given): 7,7-

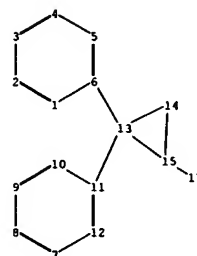
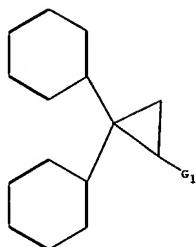
Dibromobicyclo[4.1.0]heptane, 79-80°/2, 1.5560, 42.7, cyclohexene

(X); 6,6-dibromobicyclo[3.1.0]hexane, 110°/11, 1.5744, 54.2,

cyclopentene (XI). The relative rates of the 3-center addition of CBr₂ to

the following olefins were: III 1.00, VII 3.5, VIII 3.2, V 1.2, IV 0.8, IX 0.5, XI 0.5, X 0.4, VI 0.4, II 0.07, I 0.02, CH₂:CHBr very slow. The appropriate pairs of olefins treated slowly with cooling with CHBr₃ in about 100 cc. Me₃COH and with Me₃COK in the usual manner [competing olefins and their initial M concns., M concns. of CHBr₃ and Me₃COK, g. yields of the olefins (in the order given), and ratio of rates of the reaction of the 2 olefins given]: III-II, 0.545-0.500, 0.199, 0.296, 28.2, 2.2, 13.9; VI-II, 0.500-0.500, 0.199, 0.431, 30.1, 6.4, 4.8; III-X, 0.541-0.500, 0.199, 0.296, 25.6, 10.4, 2.7; III-XI, 0.489-0.497, 0.199, 0.313, 23.0, 11.9, 2.2; VII-X, 0.200-0.800, 0.300, 0.221, 13.3, 6.5, 9.4; II-I, 0.131-0.131, 0.100, 0.116, 5.3, 2.1, 3.2; III-IV, 0.329-0.295, 0.200, 0.242, 21.6, 23.6, 1.3; VIII-X, 0.200-1.000, 0.200, 0.226, 15.8, 11.6, 8.6; V-III, 0.300-0.357, 0.200, 0.233, 23.9, 17.8, 1.2; IX-X, 0.670-0.643, 0.438, 0.538, 35.4, 29.4, 1.3.

The diagram shows a chemical structure consisting of two cyclohexane rings connected to a central carbon atom. This central carbon is also bonded to a three-membered ring (epoxide or cyclopropane). A label G_1 is attached to one of the carbons of the three-membered ring.

[illegible]